



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**


118724  
DEPT OF TRANSPORTATION

00 DEC 15 PM 2:47

# Memorandum

Subject: Submittal to Docket NHTSA 2000 - 7013 of  
Ex Parte Information Received During Technical Workshop

Date: 12-14-00

From: Edward Jettner   
Safety Standards Engineer

Reply to  
Attn. of:

To: NHTSA Docket 2000 - 7013 - 51

THRU:   
Frank Seales, Jr., Chief Counsel

On December 6, 2000, NHTSA's Vehicle Research and Test Center at East Liberty, Ohio, held a technical workshop to learn more about test procedures for advanced air bags, particularly those dealing with child dummy positioning for air bag suppression and low risk deployment and 5<sup>th</sup> percentile female dummy positioning for low risk deployment tests.

The main workshop issues were cinch down procedures for static suppression tests, positioning the 3-year-old and 6-year-old child dummies for testing low-risk deployment air bags, and the positioning of the 5<sup>th</sup> percentile female driver dummy for low risk deployment during "chin-on-rim" testing. After the workshop, several participants provided slide presentations and other information highlighting concerns expressed previously in petitions for reconsideration for the Final Rule dealing with advanced air bags.

DaimlerChrysler filed their presentation as NHTSA Docket 2000-7013 - 49. Copies of the other presentations are attached as follows:

Attachment A:	TRW Presentations (1 and 2)
Attachment B:	Honda Presentation
Attachment C:	Toyota Presentation
Attachment D:	Porsche Presentation
Attachment E:	Volvo Presentation
Attachment F:	VW Presentation
Attachment G:	GM Presentation
Attachment H:	Delphi Presentation

A copy of the notice that announced the workshop is included as Attachment I. The workshop agenda is included as Attachment J.

Attachments

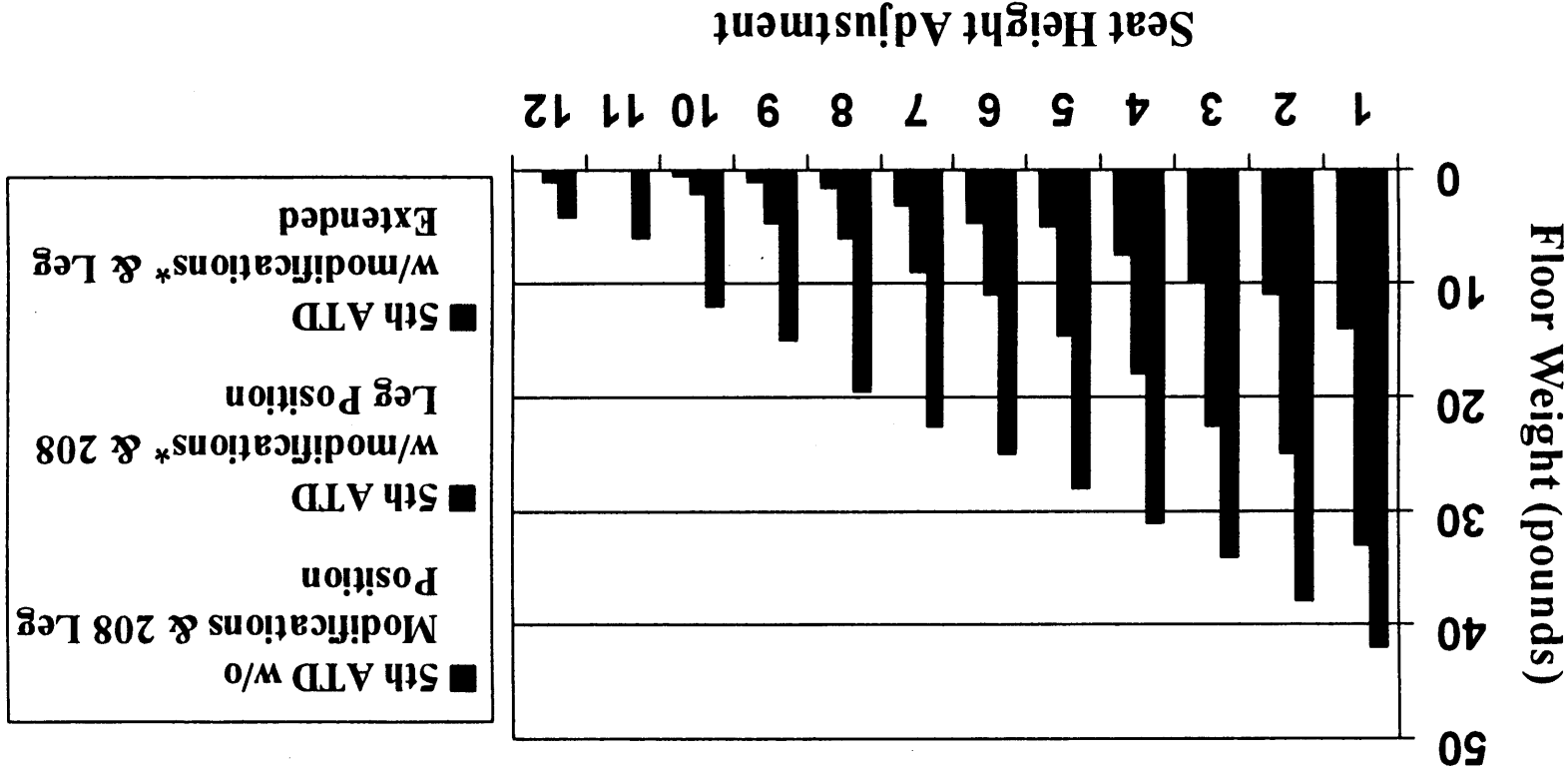


#

# Measured Floor Weight Under Various Conditions

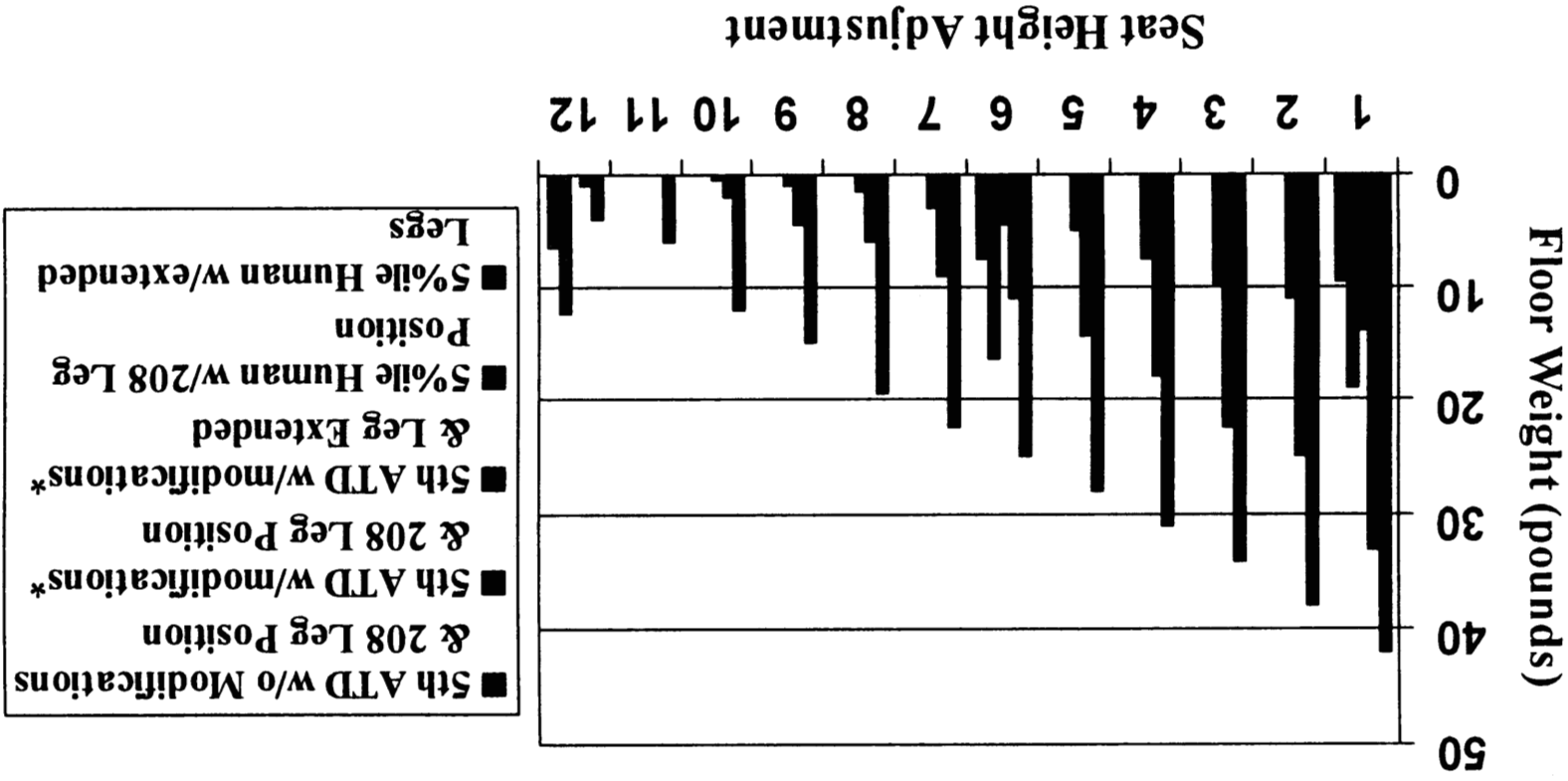
TRW-2

ATTACHMENT  
A (TRW-2)

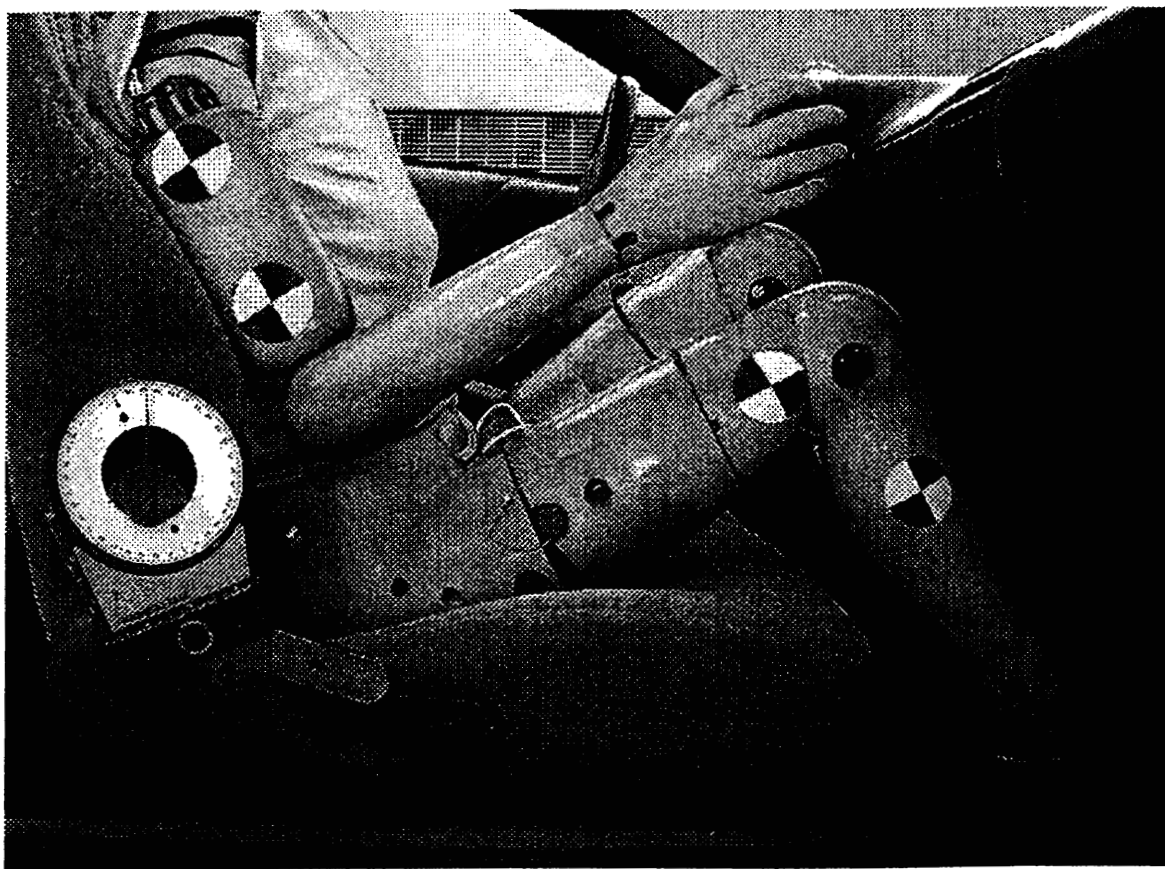


\*Modifications include modified pelvis and "loose" joints

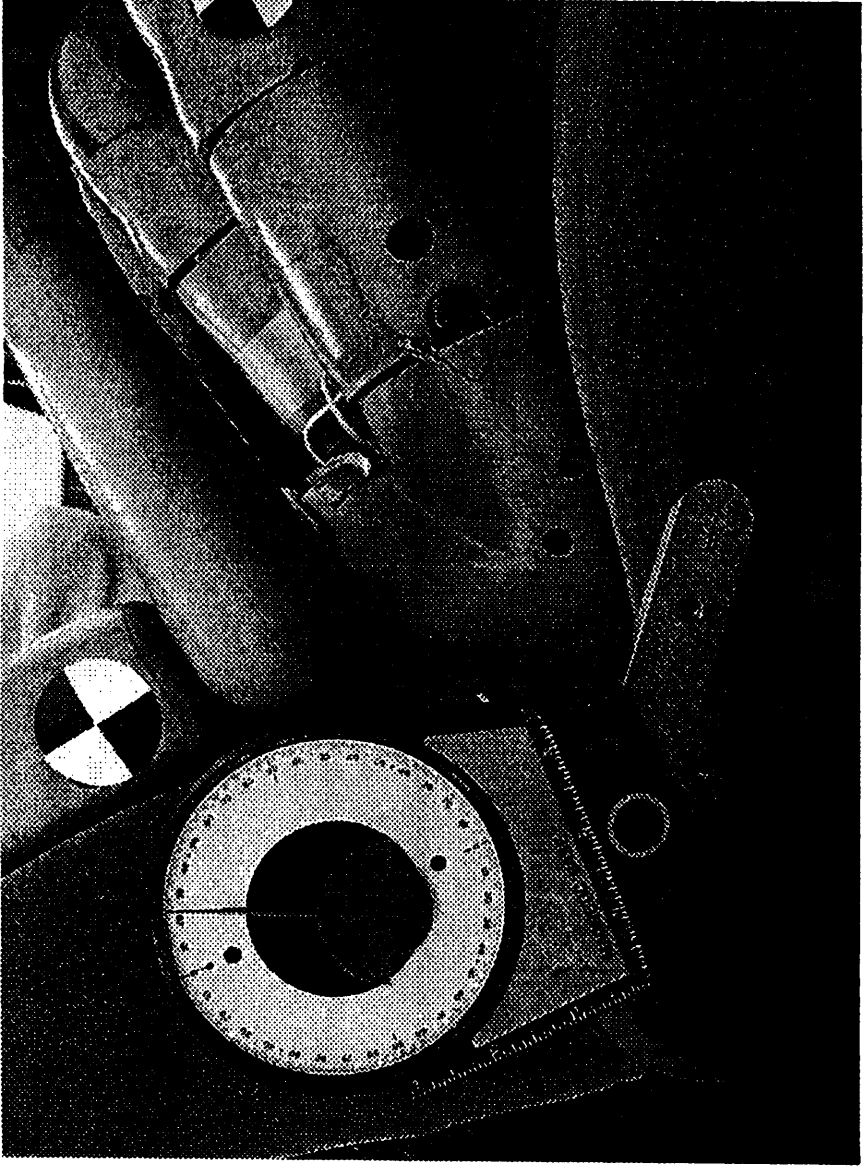
# Measured Floor Weight Under Various Conditions



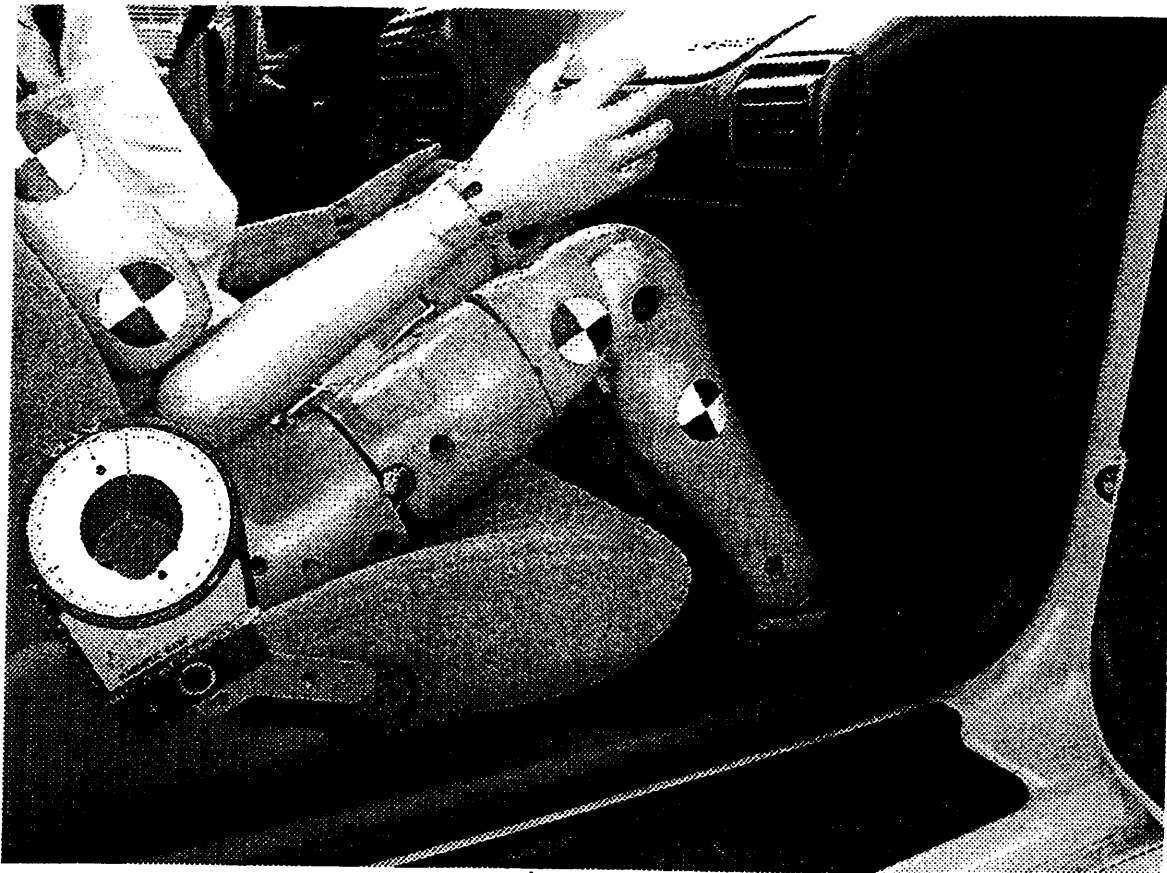
\*Modifications include modified pelvis and "loose" joints



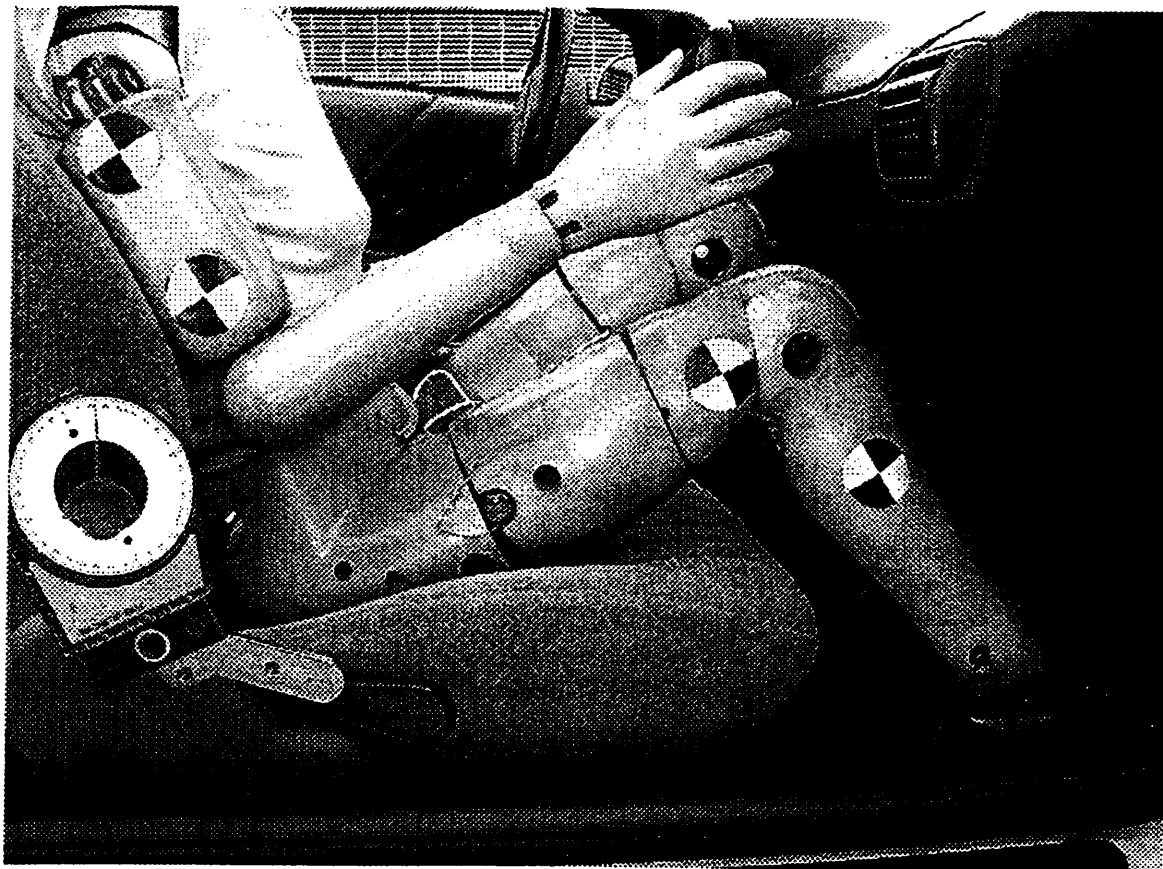
Lower Leg-Toes Forward to Toeboard - 01



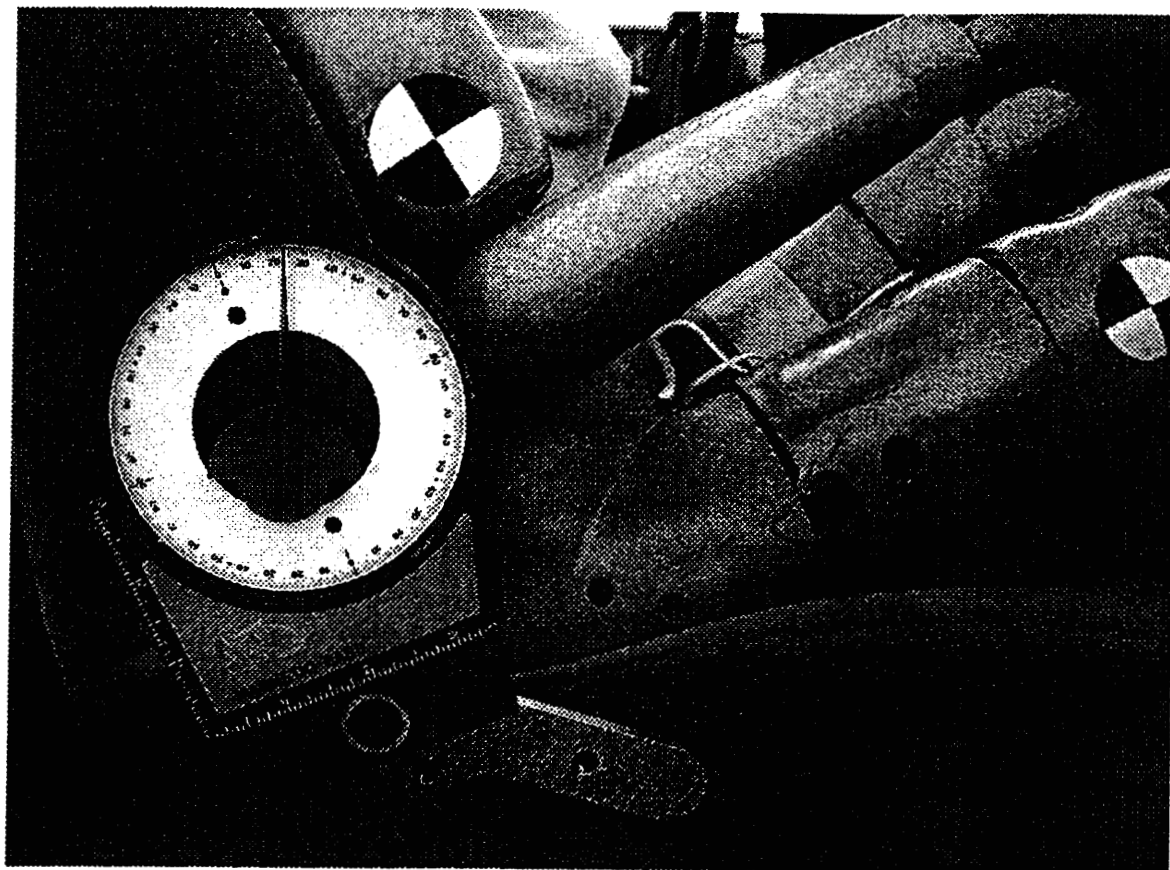
2-201



TRW-2

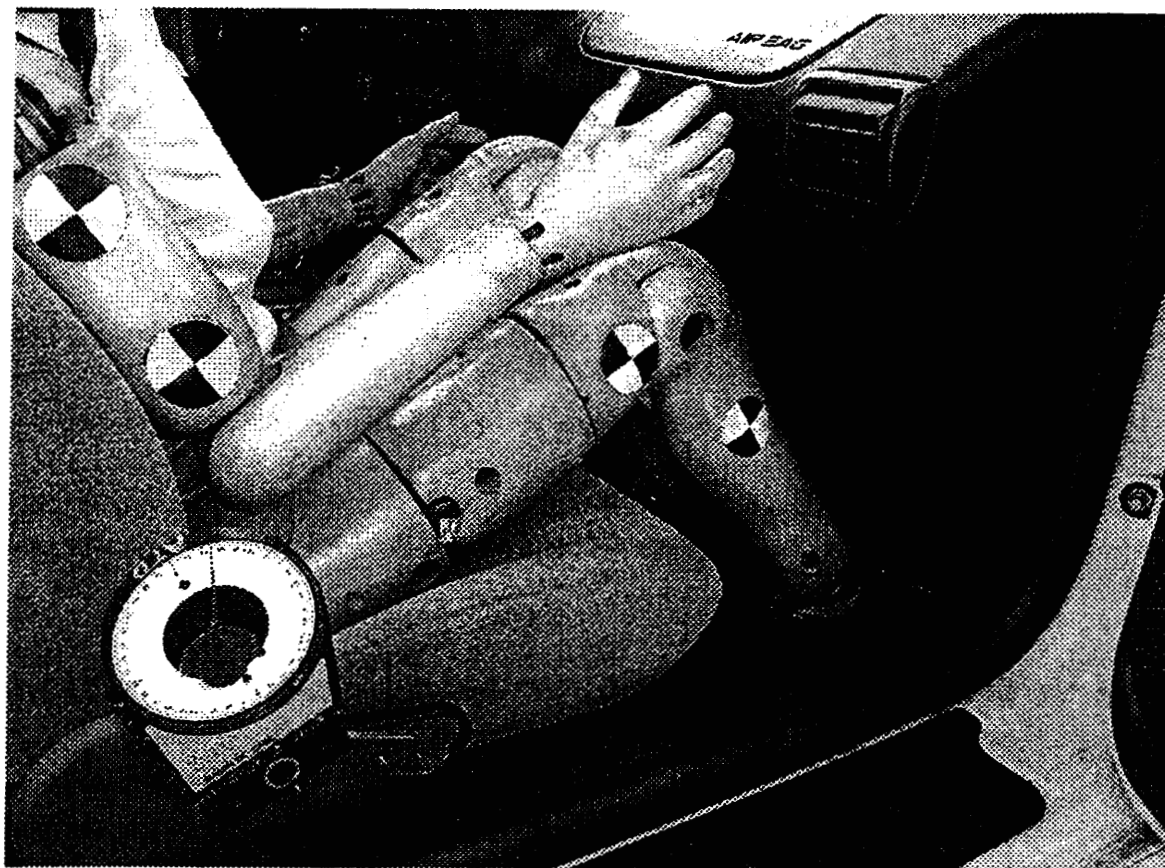


1



05

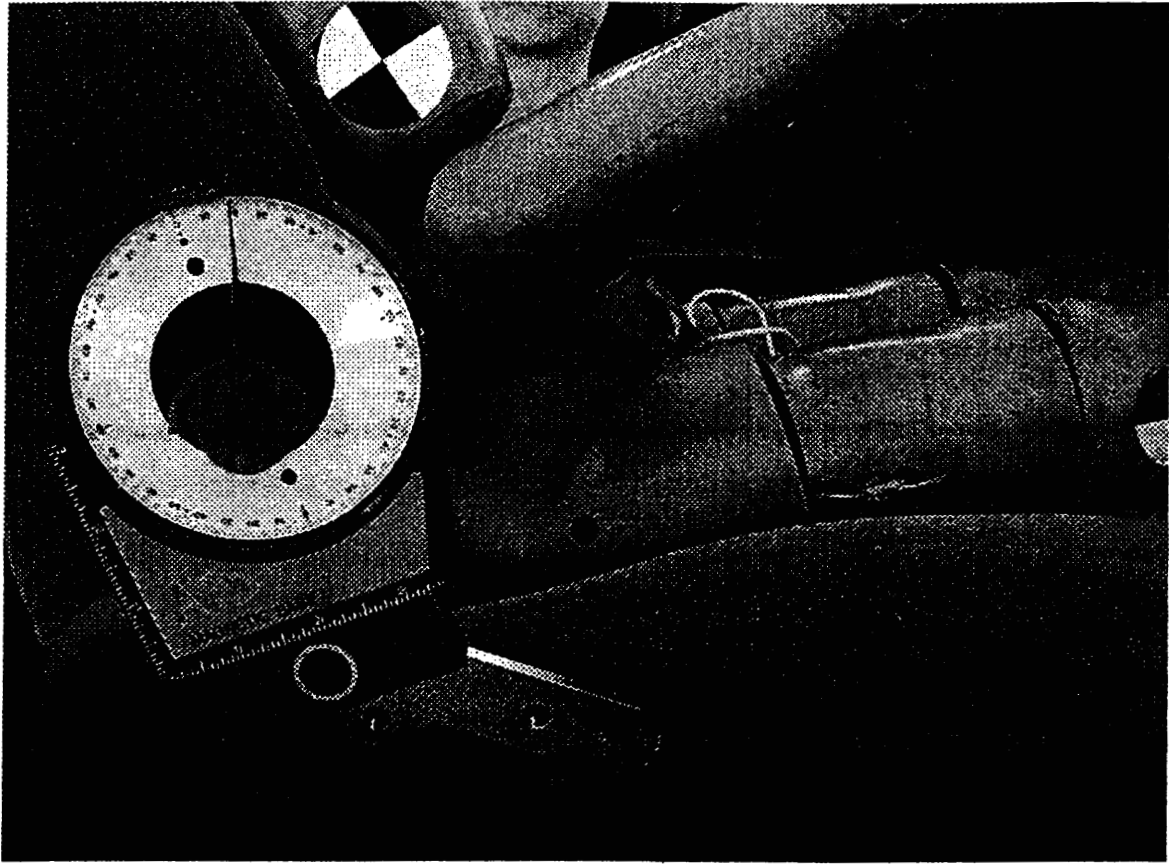
15



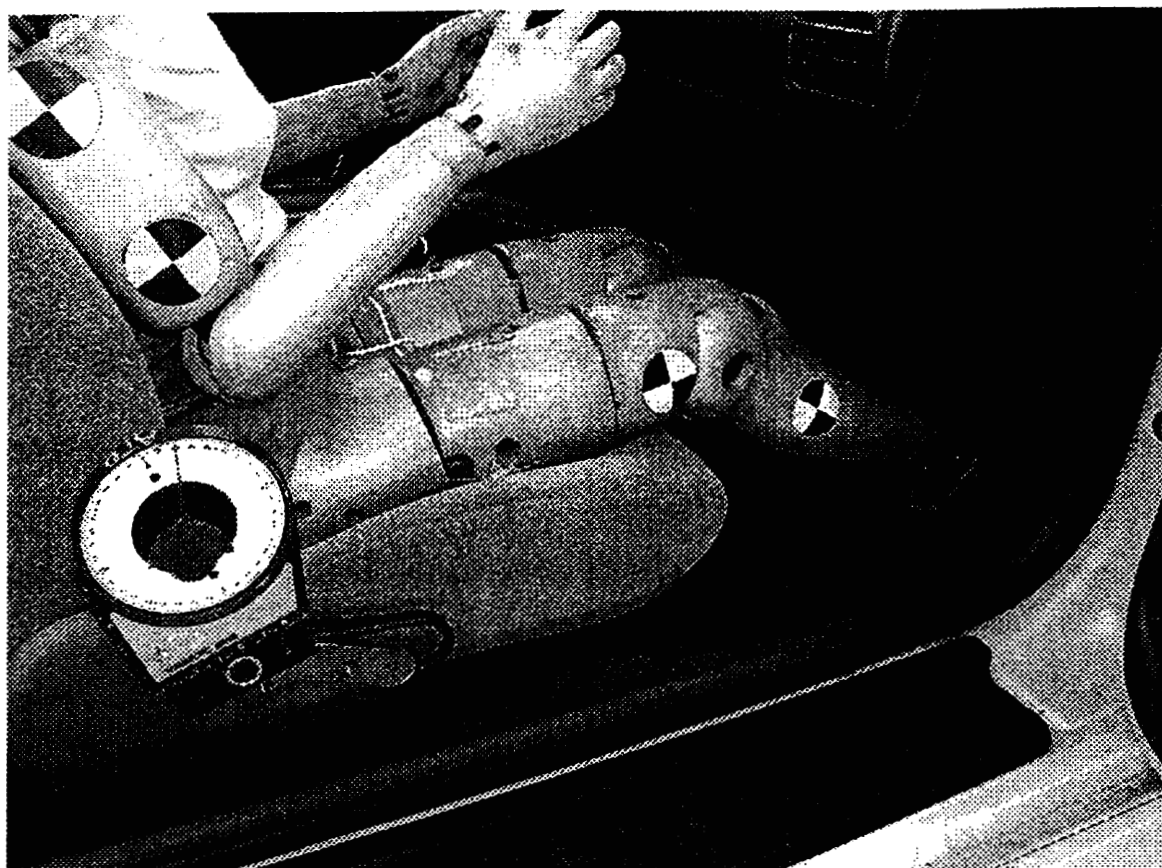
06



07



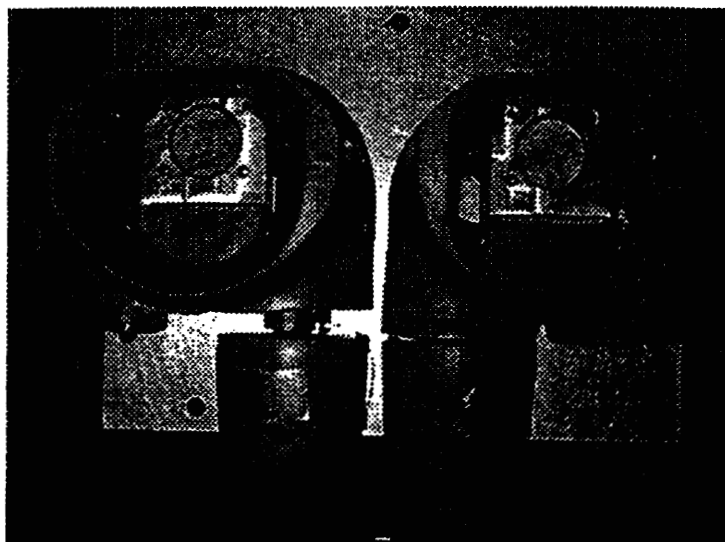
9-22-7



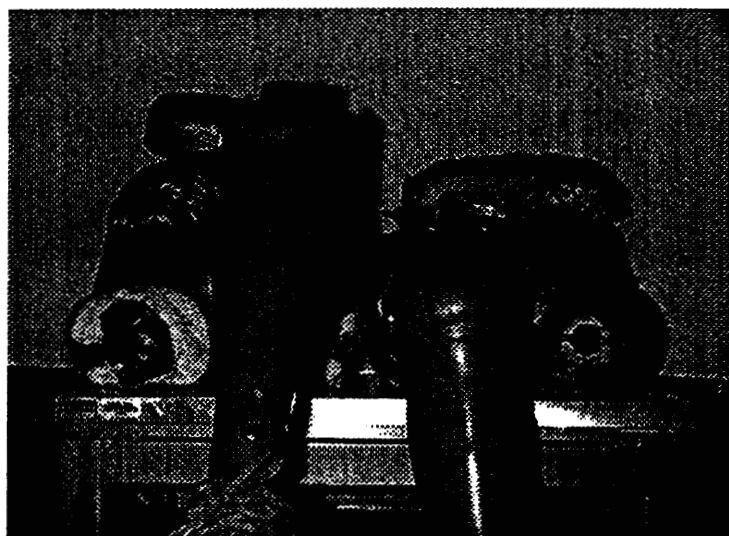
09

11

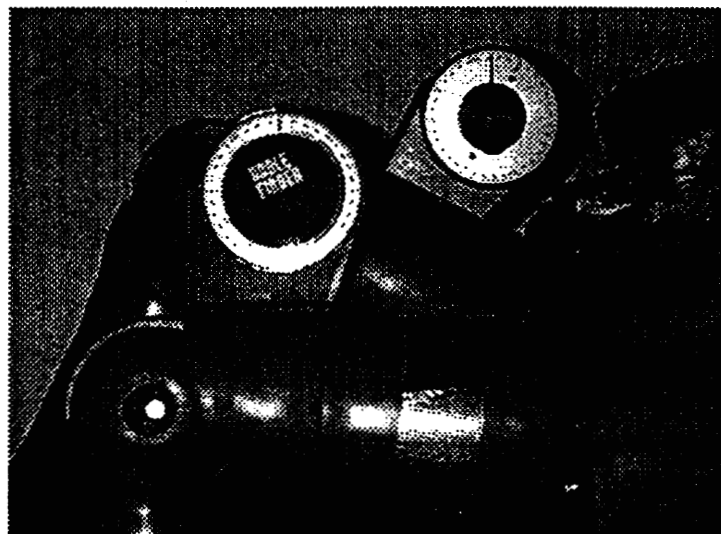
4-3211



2A



2B



2C

Figures 2A, 2B, 2C

RELEASE 12/21/99

[illegible][illegible]

TRW-1

ATTACHMENT  
A (TRW-1)

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Interim Final Rule  
Belt Tension Testing With Child Restraints

December, 2000

TRW-1

## **FMVSS 208: INTERIM FINAL RULE MAKING 30LB OUTBOARD ANCHOR REQUIREMENT**

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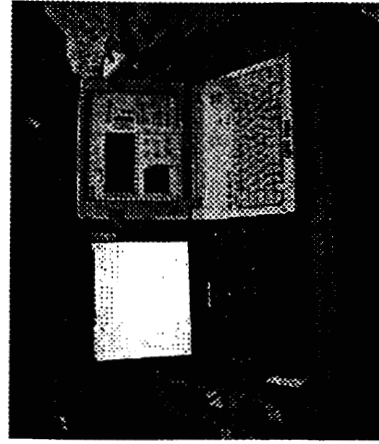
- INCONSISTENCY TEST TO TEST FOR SIMILAR TESTS (OUTBOARD & INBOARD SIDE)
  - See Charts A, B, & C: Trial to trial tensions are not the same.
- INCONSISTENCY OUTBOARD TO INBOARD SIDE
  - See Charts A, B, & C: Data should lie on 45 degree line. But in the majority of the cases, the inboard tension is greater than the outboard.
- 30LBS IS TOO HIGH
  - See Charts A, B, & C: Perhaps 15 LBS, 64% of data on Charts A, B, & C is below 15LBS. Or 20LBS, 76% of data on Charts A, B, & C is below 20LBS.
- VIBRATIONS TO CINCHED SEATS (SHAKEN SEATS) CAUSE REDUCTIONS/CHANGES IN SYSTEM & OUTBOARD SIDE TENSION.
  - See Charts D, E, & F. Charts D & E show the tension values as a cinched seat is shaken a number of times. Chart F shows the tension values as a cinched seat w/dummy is shaken.
- INSERTION OF DUMMY CAUSES DECLINE IN BELT TENSION.
  - See Chart F. As a dummy is placed into a cinched seat, the tension decreases on both the outboard and inboard sides.

# Test Setup Information

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Weight sensor



Data acquisition



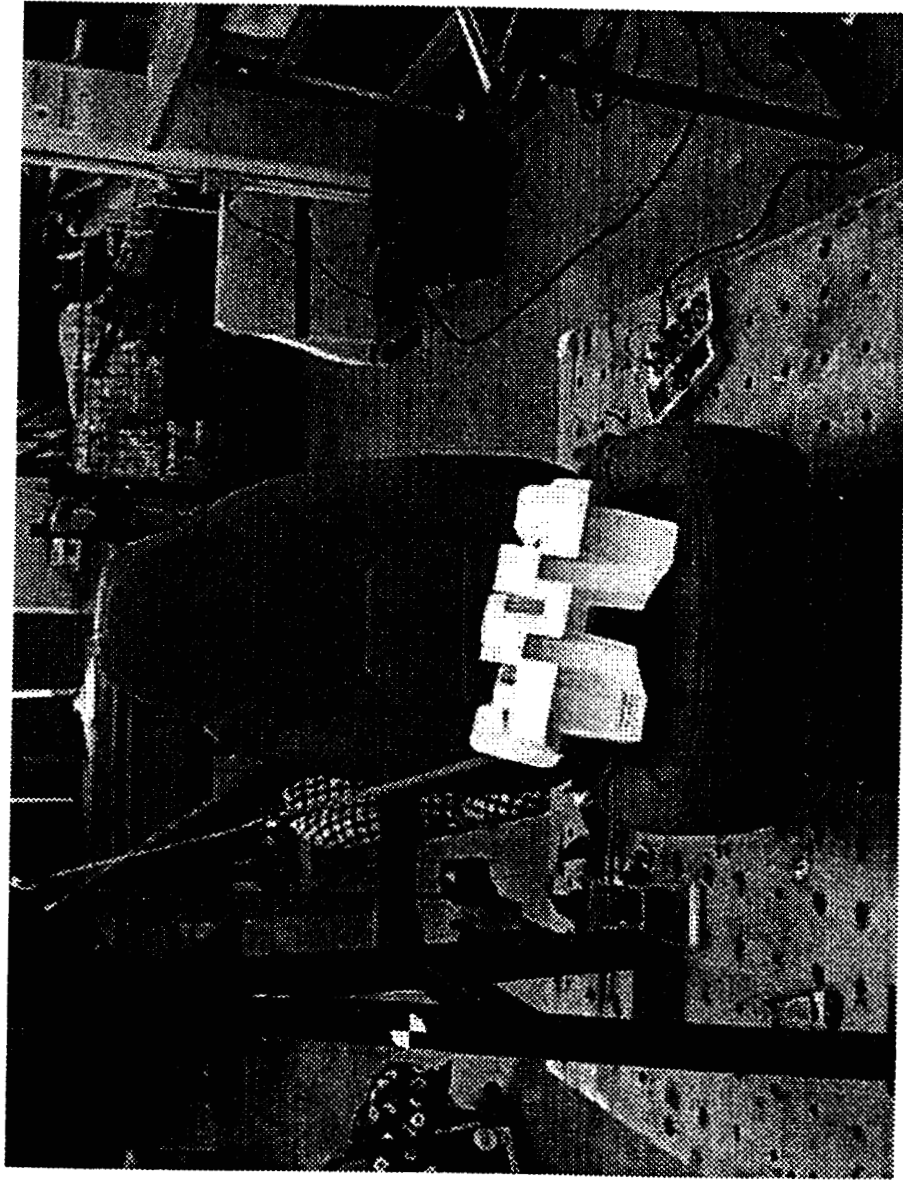
Webbing tensioner



Seat test setup

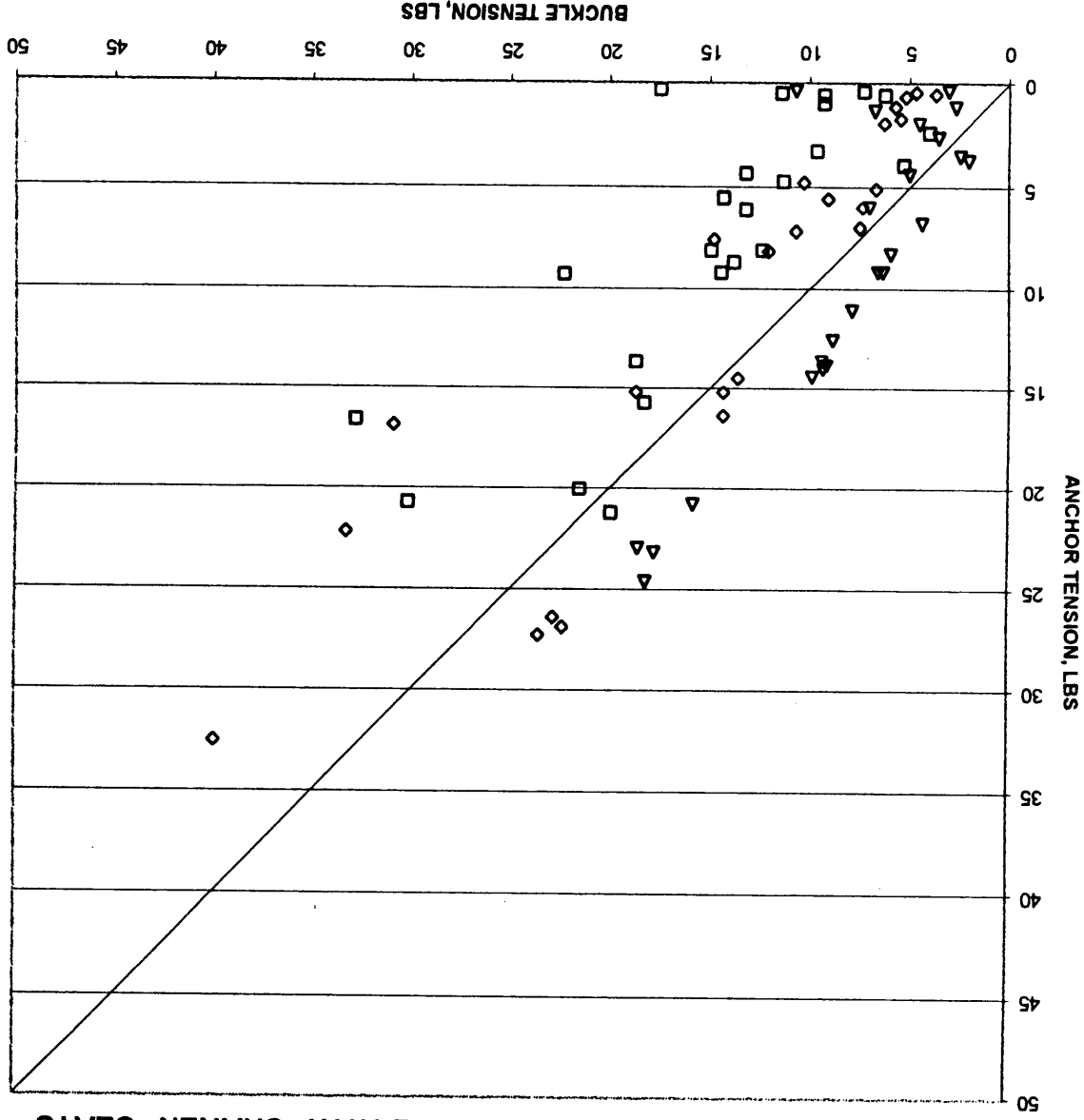
## Test Setup Information

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Cinched down RFIS base.

**CHART A**  
**BRITAX ROUNDABOUT CONVERTIBLE CHILD SEAT - FORWARD FACING WITH CINCH**  
**EACH DATA SET CONTAINS 6 TRIALS**  
**THE 5TH AND 6TH TRIALS WERE WITH "SHAKEN" SEATS**



□ BRITAXRA-P-B-F-YK  
 ◇ BRITAXRA-S-B-F-YK  
 △ BRITAXRA-AB-B-F-YK  
 □ BRITAXRA-P-N-F-YK  
 ◇ BRITAXRA-S-N-F-YK  
 △ BRITAXRA-AB-N-F-YK  
 □ BRITAXRA-P-F-F-YK  
 ◇ BRITAXRA-S-F-F-YK  
 △ BRITAXRA-AB-F-F-YK  
 □ BRITAXRA-P-K-F-YK  
 ◇ BRITAXRA-S-K-F-YK  
 △ BRITAXRA-AB-K-F-YK

**LEGEND CODE:**

BRITAXRA - W - X - Y - Z

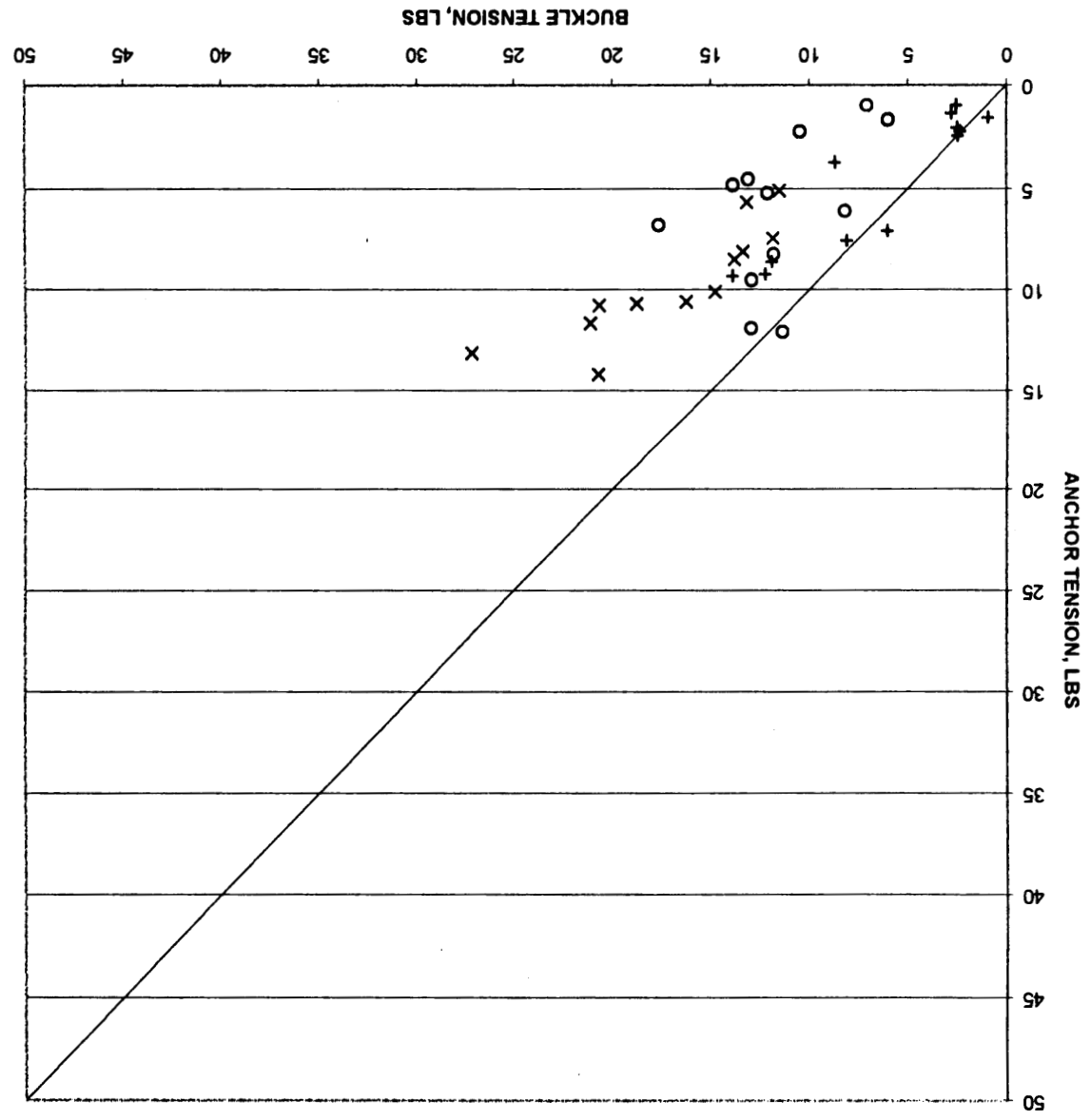
W = location of applied webbing force (P = pillar - between D ring and retractor assembly, S = shoulder - between child seat and D ring, AB = above buckle - above buckle).

X = location/type of load applied to child seat (B = bottom back of sitting area, F = front of seat under child's legs, N = no applied load to the child seat, K = kneeling on the seat).

Y = orientation of child seat (F = forward, R = rearward).

Z = KISI engagement (YK = KISI engaged, NK = no KISI).

**CHART B**  
**BRITAX ROUNDABOUT CONVERTIBLE CHILD SEAT - REARWARD FACING WITH CINCH**  
**EACH DATA SET CONTAINS 6 TRIALS**  
**THE 5TH AND 6TH TRIALS WERE WITH "SHAKEN" SEATS**



**LEGEND CODE:**  
BRITAXRA - W - X - Y - Z

W = location of applied webbing force  
(P = pillar - between D ring and retractor assembly, S = shoulder - between child seat and D ring, AB = above buckle - above buckle).

X = location/type of load applied to child seat (B = bottom back of sitting area, F = front of seat under child's legs, N = no applied load to the child seat, K = kneeling on the seat).

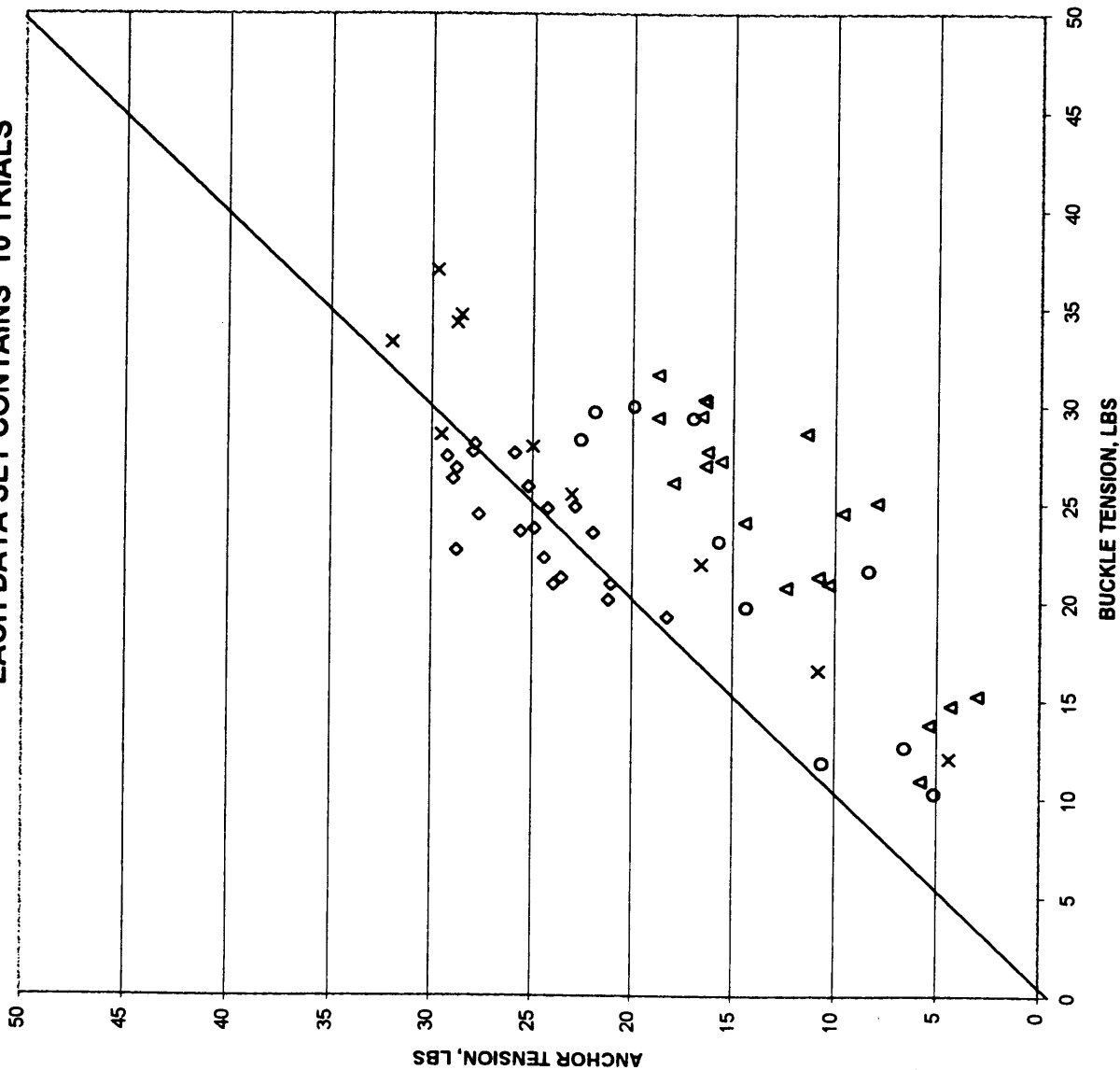
Y = orientation of child seat (F = forward, R = rearward).

Z = KISI engagement (YK = KISI engaged, NK = no KISI).

- × BRITAXRA-P-M-R-YK
- BRITAXRA-S-M-R-YK
- + BRITAXRA-AB-M-R-YK
- × BRITAXRA-P-N-R-YK
- BRITAXRA-S-N-R-YK
- + BRITAXRA-AB-N-R-YK

TRW-1

**CHART C**  
**BRITTAX ROUNDABOUT CONVERTIBLE CHILD SEAT**  
**REARWARD & FORWARD FACING WITH CINCH**  
**EACH DATA SET CONTAINS 10 TRIALS**

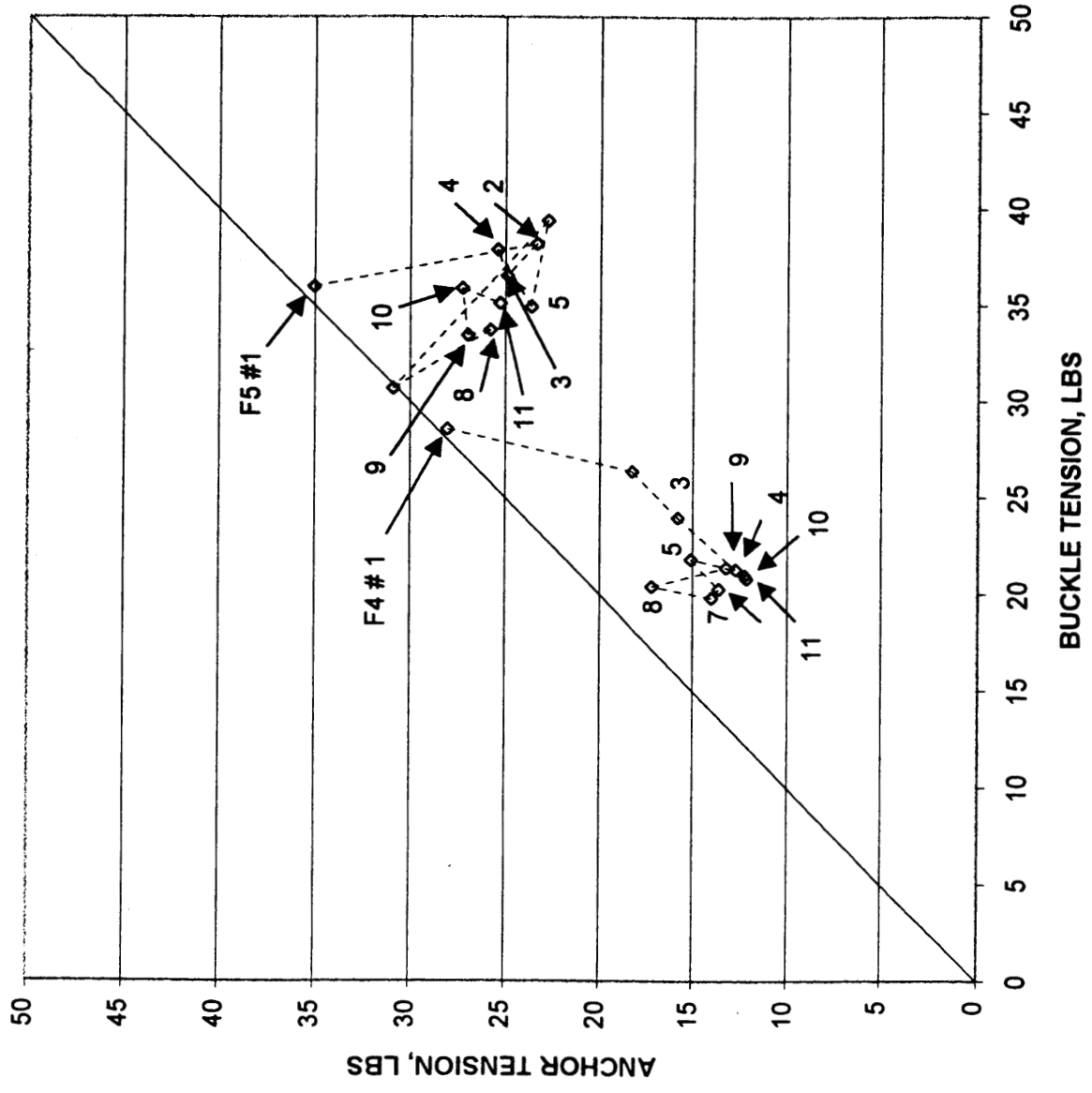


- ◇ BRIT161-FF-FF-100#B
- △ BRIT161-FF-FF-100#C
- x BRIT161-FF-FF-100#D

**LEGEND CODE:**  
BRITTAXRA - W - X - Y - Z  
W = Tongue type (FF = free falling).  
X = orientation of child seat (F = forward, R = rearward).  
Y = Preload to seat (100# = 100 lb applied to child seat prior to cinch down).  
Z = Set identification - file label.

TRW-1

CHART D  
BRITAX ROUNDABOUT CONVERTIBLE CHILD SEAT - FORWARD FACING WITH CINCH  
EACH DATA SET CONTAINS 11 TRIALS



- ◇-- BRIT161-FF-FF-100#F4
- ◇-- BRIT161-FF-FF-100#F5

LEGEND CODE:

BRITTAXRA - W - X - Y - Z

W = Tongue type (FF = free falling).

X = orientation of child seat (F = forward, R = rearward).

Y = Preload to seat (100# = 100 lb applied to child seat prior to cinch down).

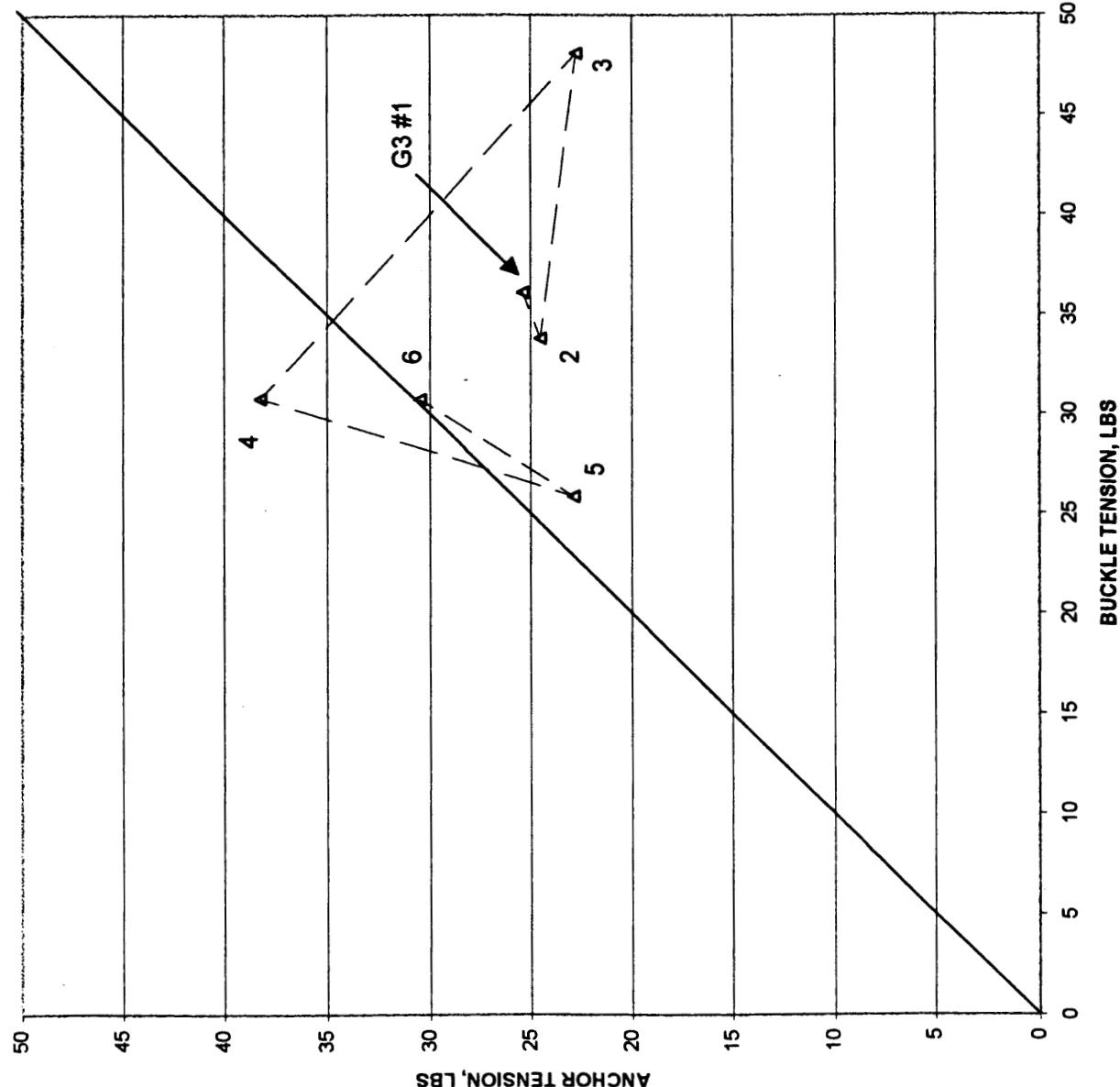
Z = Set identification - file label.

TEST PROCEDURE:

1. Cinch down child seat.
2. Record loads.
3. Rock child seat (with hand on top of seat back) towards outboard direction, inboard direction, and re-center child seat.
4. Record loads.
5. Repeat steps #3 & #4 10 times.

Note: Trials are numbered in order of data collected.

# CHART E BRITTAX ROUNDABOUT CONVERTIBLE CHILD SEAT - FORWARD FACING WITH CINCH



-- A -- BRIT161-FF-FF-100#G3

## LEGEND CODE:

BRITTAXRA - W - X - Y - Z

W = Tongue type (FF = free falling).

X = orientation of child seat (F = forward, R = rearward).

Y = Preload to seat (100# = 100 lb applied to child seat prior to cinch down).

Z = Set identification - file label.

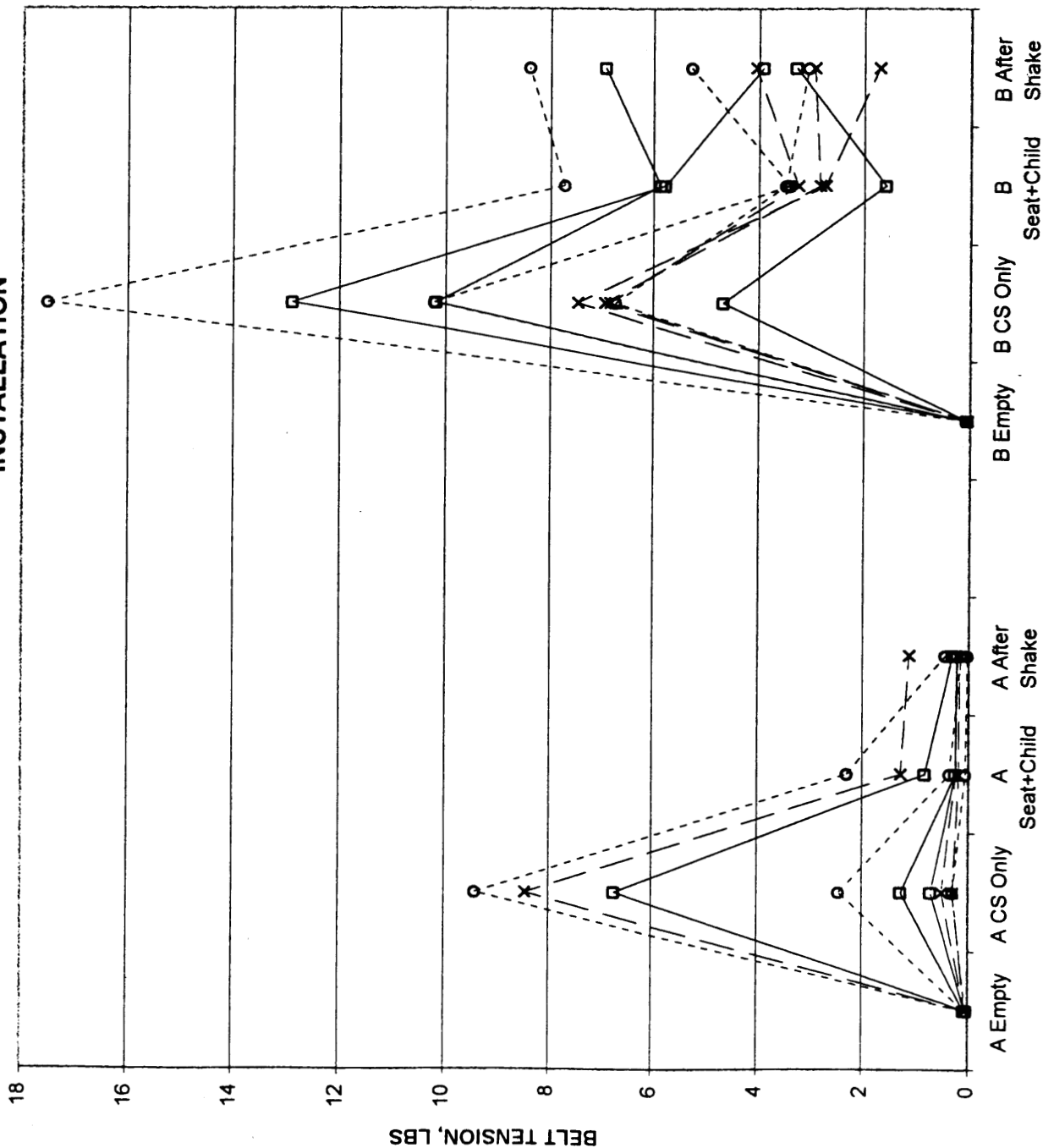
## TEST PROCEDURE:

1. Cinch down child seat.
2. Record loads.
3. Rock child seat (with hand on top of seat back) towards outboard direction, inboard direction, and re-center child seat.
4. Record loads.
5. Repeat steps #3 & #4 until buckle side and anchor side tensions are approximately 30lbs.

Note: Trials are numbered in order of data collected.

TRW-1

CHART F  
ANCHOR SIDE TENSION (A) & BUCKLE SIDE TENSION (B)  
FISHER PRICE SAFE EMBRACE FORWARD FACING C.S. NO FORCE APPLIED TO C.S. DURING  
INSTALLATION



TEST PROCEDURE:

1. Record tensions for empty vehicle seat.
2. Install child seat and cinch down - record buckle side and anchor side tensions.
3. Install dummy into child seat - record buckle side and anchor side tensions.
4. Shake child seat to simulate child movement and/or road vibration - record buckle side and anchor side tensions.

# NHTSA Advanced Airbag Technical Workshop

12/06/00

## --- Supplemental and follow up information ---

- 1)... Interactions with the interior components  
(300ms. issue)
- 2)... A way of sliding the dummy forward on the  
seat: (AS... P2)
- 3)... Confirmation of procedures and questions  
(OOP and Frontal)

Honda Motor Co., Ltd.

1)....Interactions. with. the. interior. components. (300ms  
issue)

S4.11. Test. duration. for. purpose. of. measuring. injury  
criteria.

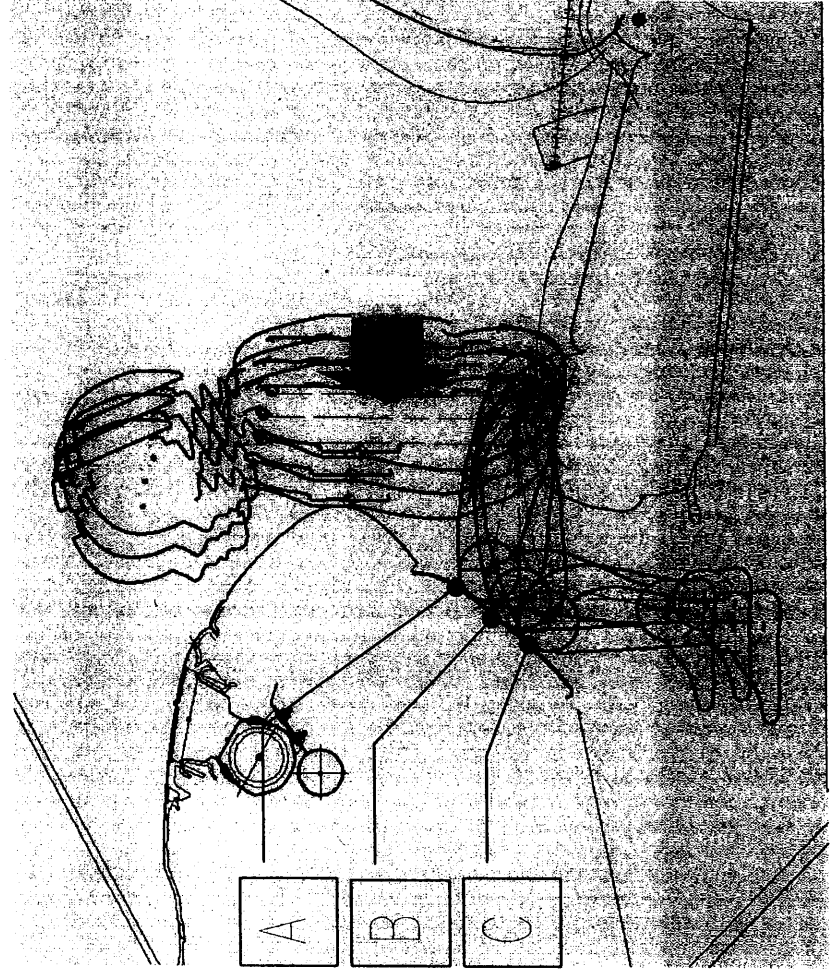
For. low. risk. deployment. tests, the. injury. criteria  
shall. be. met. when. calculated. based. on. data. recorded  
for. 300. milliseconds. after. the. air. bag. is. signaled  
to. deploy.

Would. this. method. include. interactions. with. the. interior. component  
. There. are. no. seat. track, seat. height, or. seat. back. angle. requiremen

2)....A. way. of . sliding. the. dummy. forward. on. the. seat .  
(A.S.... P2)

S22. 4. 3. 4/S24. 4. 4. Position. 2. (head. on. instrument. panel )  
C3Y/C6Y

S22. 4. 3. 4. . If. contact. has. not. been. made. with. the. vehicle. s  
instrument. panel. at. the. full. forward. seating. position. of  
the. seat, . slide. the. dummy. forward. on. the. seat. 190mm( 7. 5 in)  
or. until. contact. is. made, . whichever. is. first.. Maintain



A: keep. to. thighs. angle

B: keep. to. thighs. angle

... (the. thighs. perpendicular. to. the  
torso)

C: not. keep. to. thighs. angle

.... (The. thighs. fall. down. at  
deadweight)

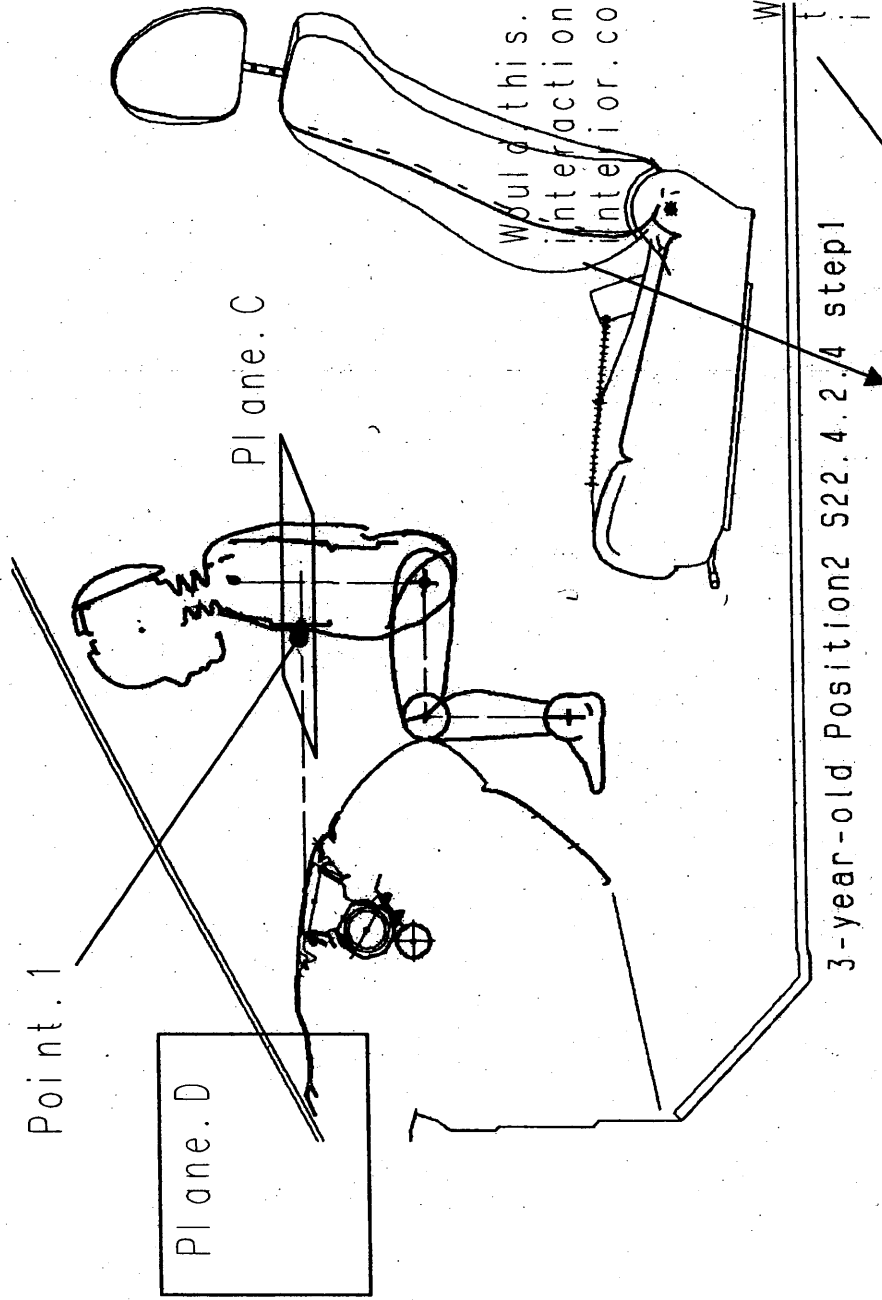
How. do. you. slide. the. dummy  
forward. on. the. seat. ?

3) . . . Confirmation of procedures and questions .

C3Y. P1/P2

C6Y. P1/P2

Frontal . Crash. AF5% .



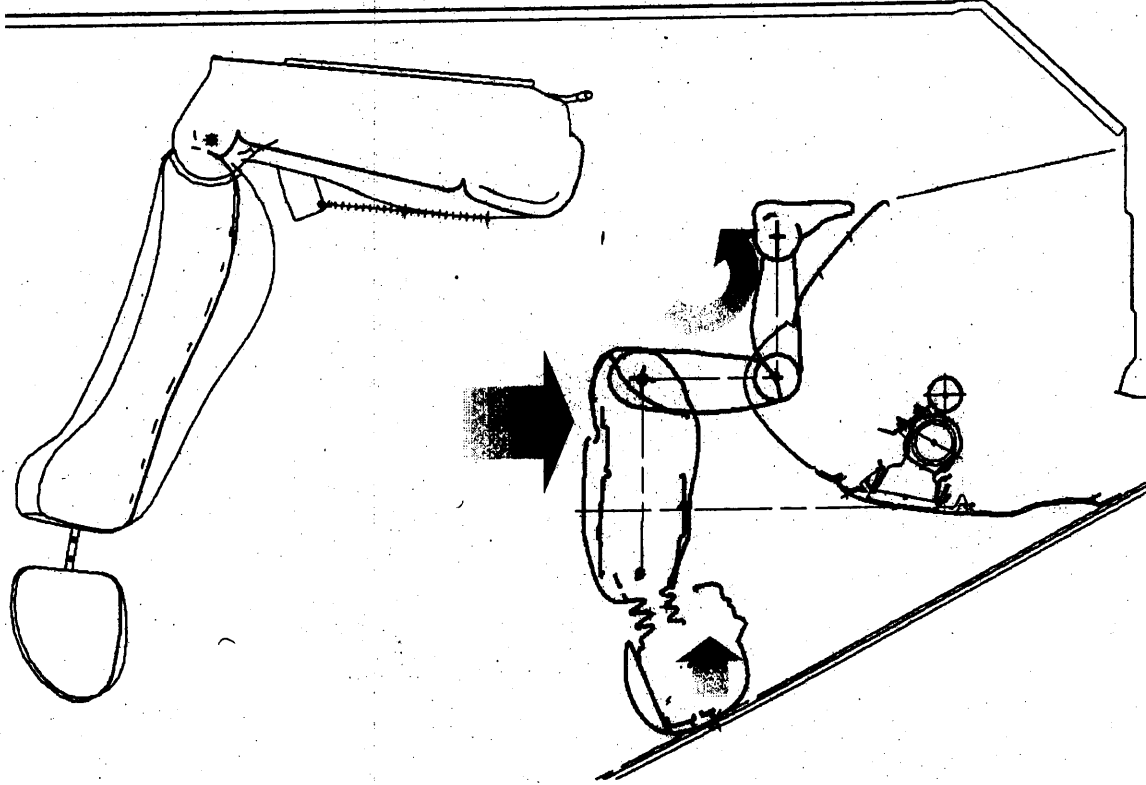
S22.4.2.1. There. are. no. seat. track. seat. height. or. seat. back. angle. requirements.

S22.4.2.2. Place. the. dummy's. midsagittal. plane. coincident. with. Plane. D.

S22.4.2.3. Initially. position. the. thighs. at. a. right. angle. to. the. spine. and. the. legs. at. a. right. angle. to. the thighs.

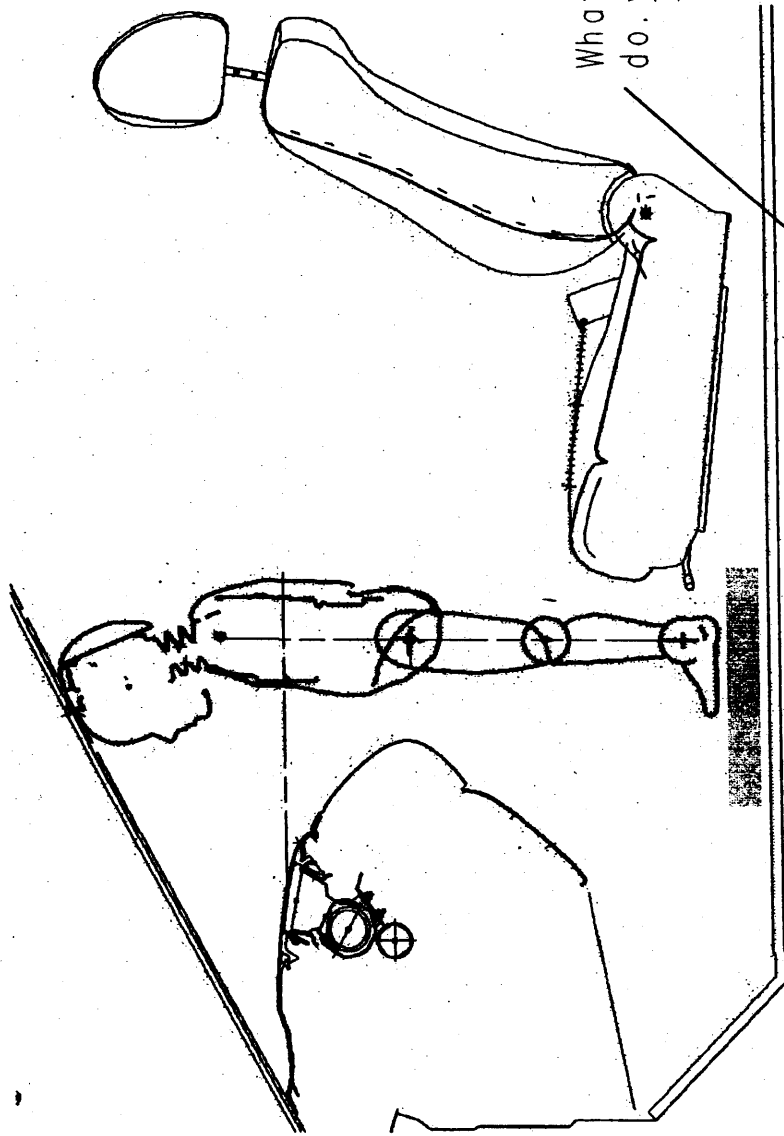
These. angles. may. be. adjusted. to. the. extent. necessary. for. the. head. and. torso. to. attain. their. final. positions.

### 3-year-old Position2 S22.4.2.4 step3



S22.4.2.4 With the dummy's thorax instrument cavity rear face vertical and Point 1 in Plane C, move the dummy forward until Point 1 contacts the instrument panel. If the dummy's head contacts the windshield and keeps Point 1 from contacting the instrument panel, lower the dummy until there is no more than 5 mm (0.2 in) clearance between the head and the windshield.

S22.4.2.5 Position the upper arms parallel to the spine and rotate the lower arms forward (at the elbow joint) sufficiently to prevent contact with or support from the seat.

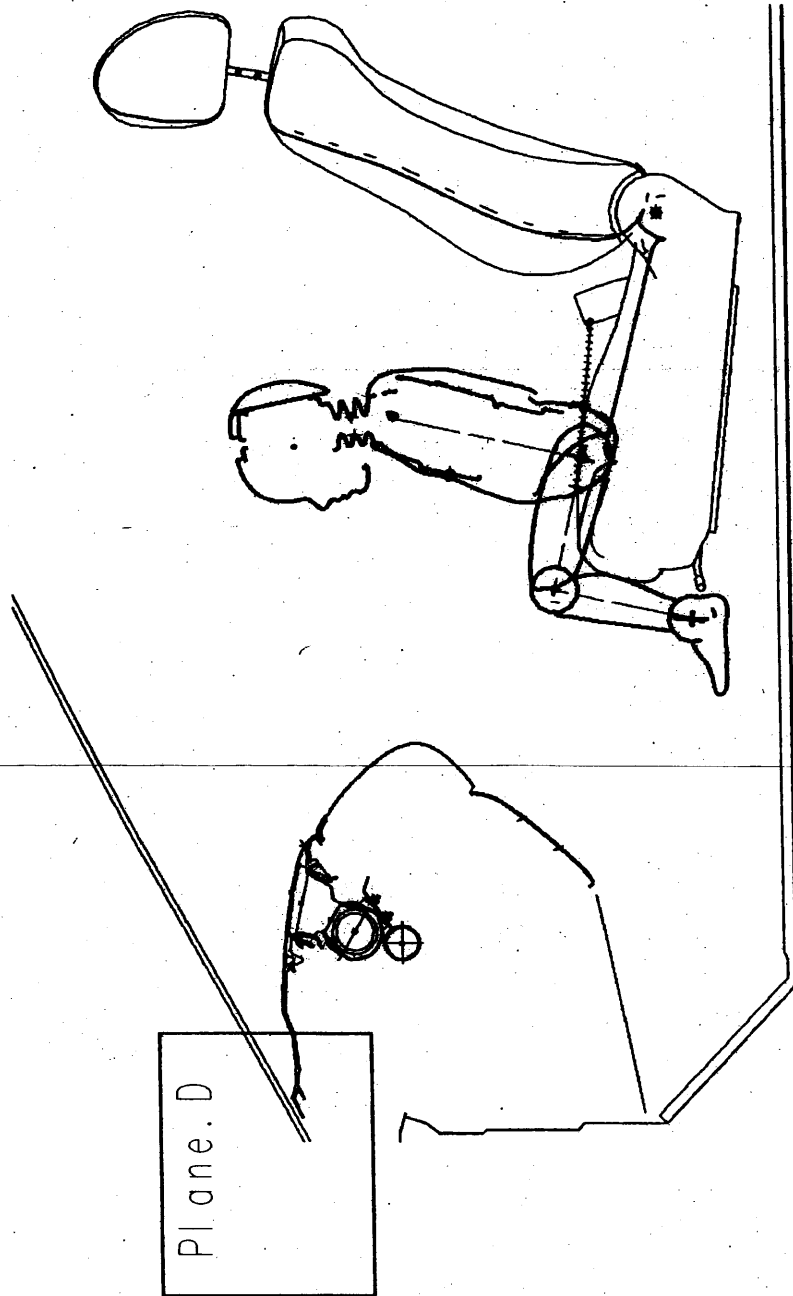


What kind of spacer  
do you use?

### 3-year-old Position 2 S22.4.2.6

S22.4.2.6. Position the legs of the dummy so that the legs are vertical and the feet rest flat on the floorboard (or the feet are positioned parallel to the floorboard) of the vehicle.

S22.4.2.7. Use the seat adjustments (fore-aft, height) to keep the dummy in position. If necessary, thread with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The thread should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the thread does not interfere with the air bag.

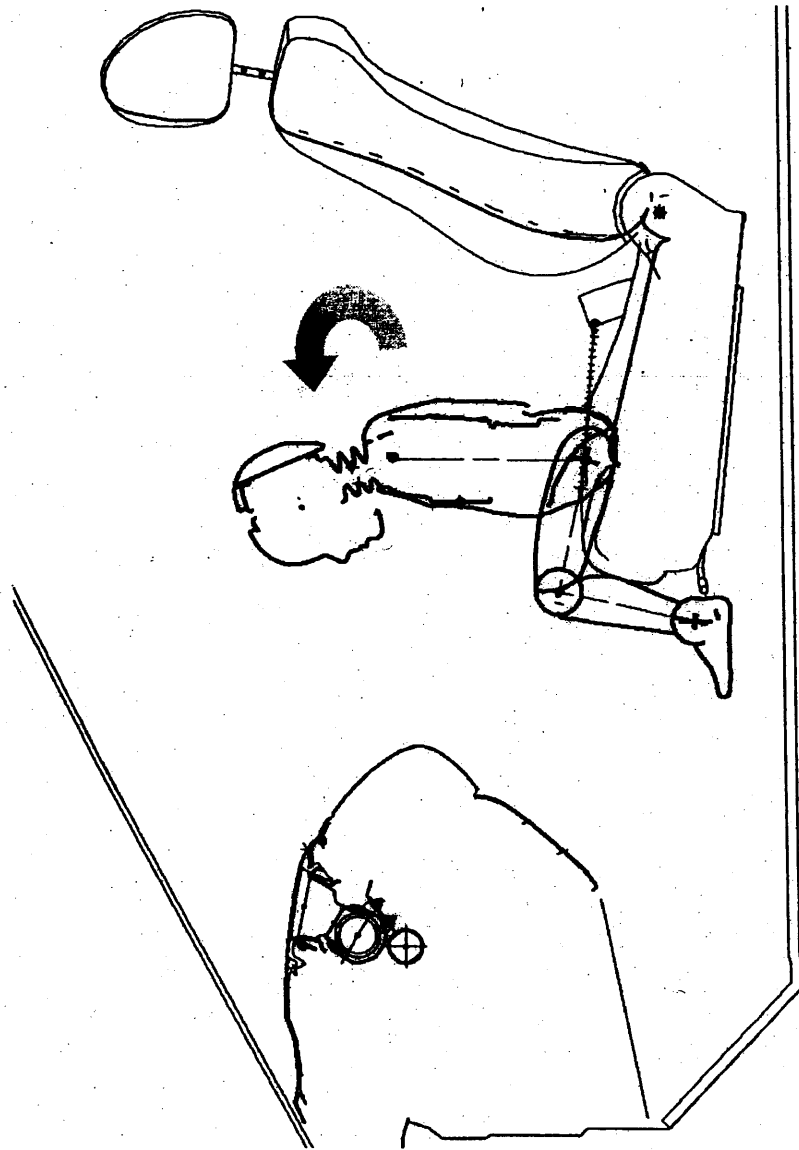


### 3-year-old Position 2 S22.4.3.2.1

S22.4.3.1. Place the passenger seat in the full rearward seating position. Place the seat back in the manufacturer's nominal design seat back angle for a 50th percentile adult male as specified in S8.1.3. If adjustable in the vertical direction, place the seat in the mid-height position.

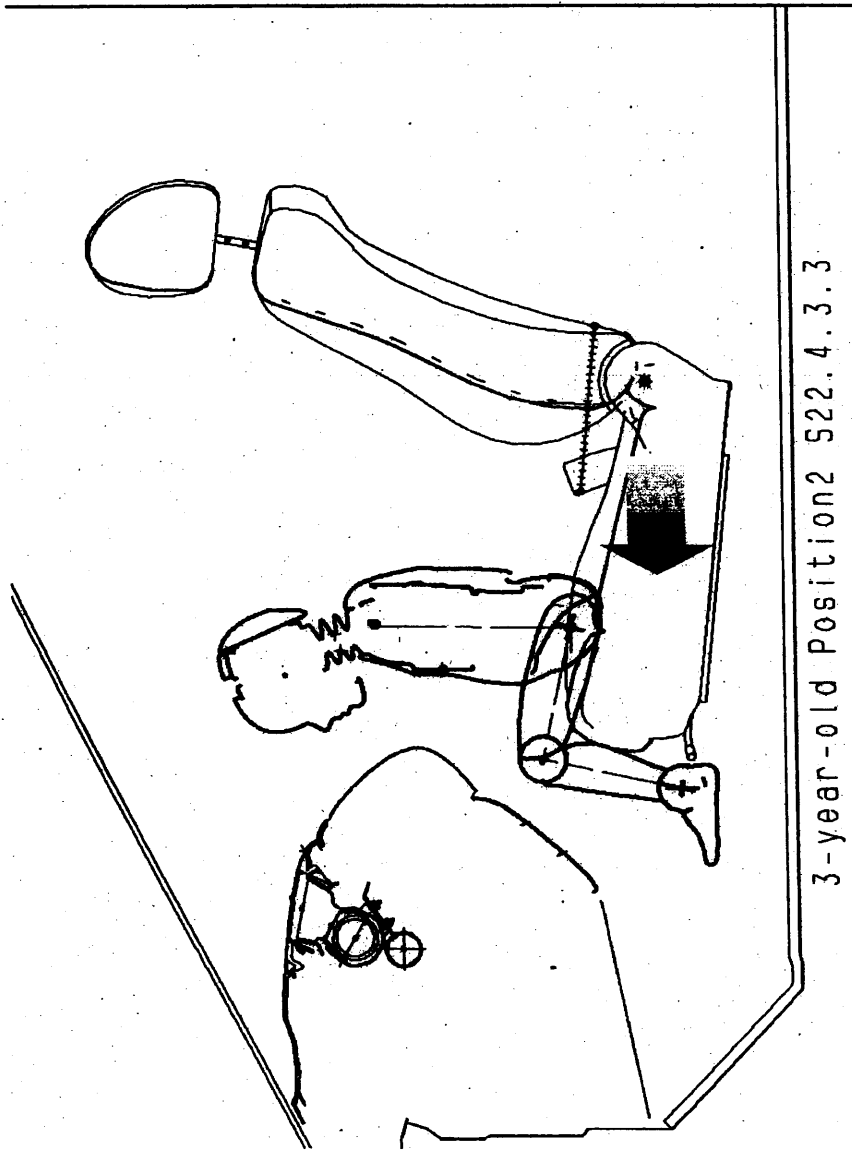
S22.4.3.2. Place the dummy in the front passenger seat such that:

S22.4.3.2.1. The dummy's midsagittal plane is coincident with Plane D. With the thighs on the seat, initially set the thighs perpendicular to the torso and the legs perpendicular to the thighs. Position the upper arms parallel to the torso and rotate the lower arms forward (at the elbow) sufficiently to prevent contact with or support from the seat.



3-year-old Position2 S22.4.3.2.2

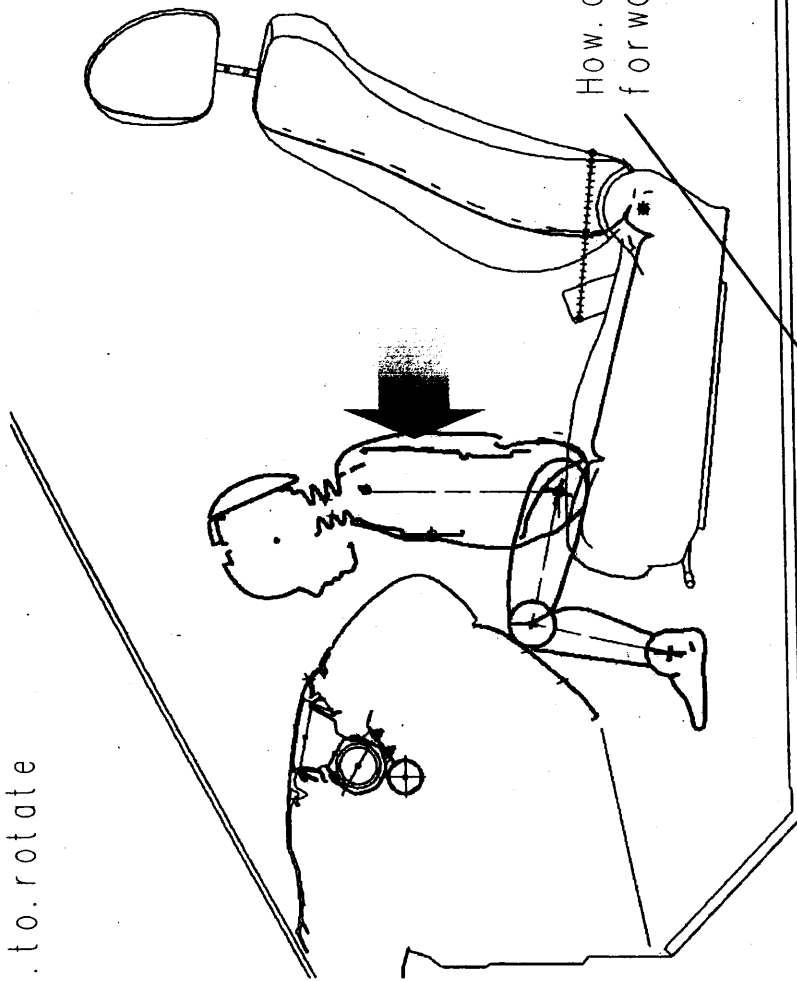
S22.4.3.2.2. The dummy is positioned in the seat such that the legs rest against the front of the seat and such that the dummy's thorax, instrument cavity, rear face is vertical. If it is not possible to position the dummy with the legs in the prescribed position, rotate the legs forward until the dummy is resting on the seat with the feet positioned flat on the floorboard.



3-year-old Position2 S22.4.3.3

S22.4.3.3. Move the seat forward, while maintaining the thorax instrument cavity rear face orientation until any part of the dummy contacts the vehicle's instrument panel.

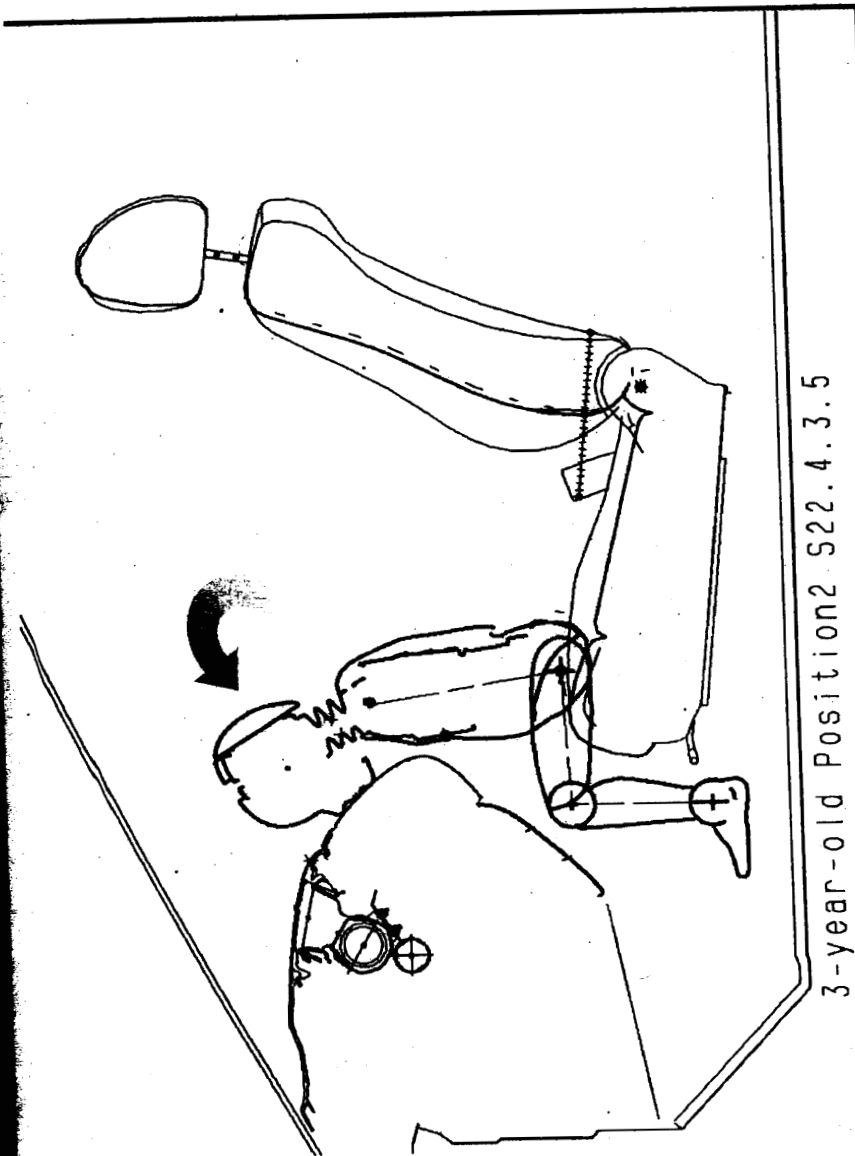
In this phase of dummy set,  
Honda continues to rotate  
the torso.



How do you slide the dummy  
forward on the seat.?

3-year-old Position 2 S22.4.3.4

S22.4.3.4. If contact has not been made with the vehicle's instrument panel at the full forward seating position of the seat, slide the dummy forward on the seat 190 mm (7.5 in) or until contact is made, whichever is first. Maintain the thorax instrument cavity rear face vertical orientation.

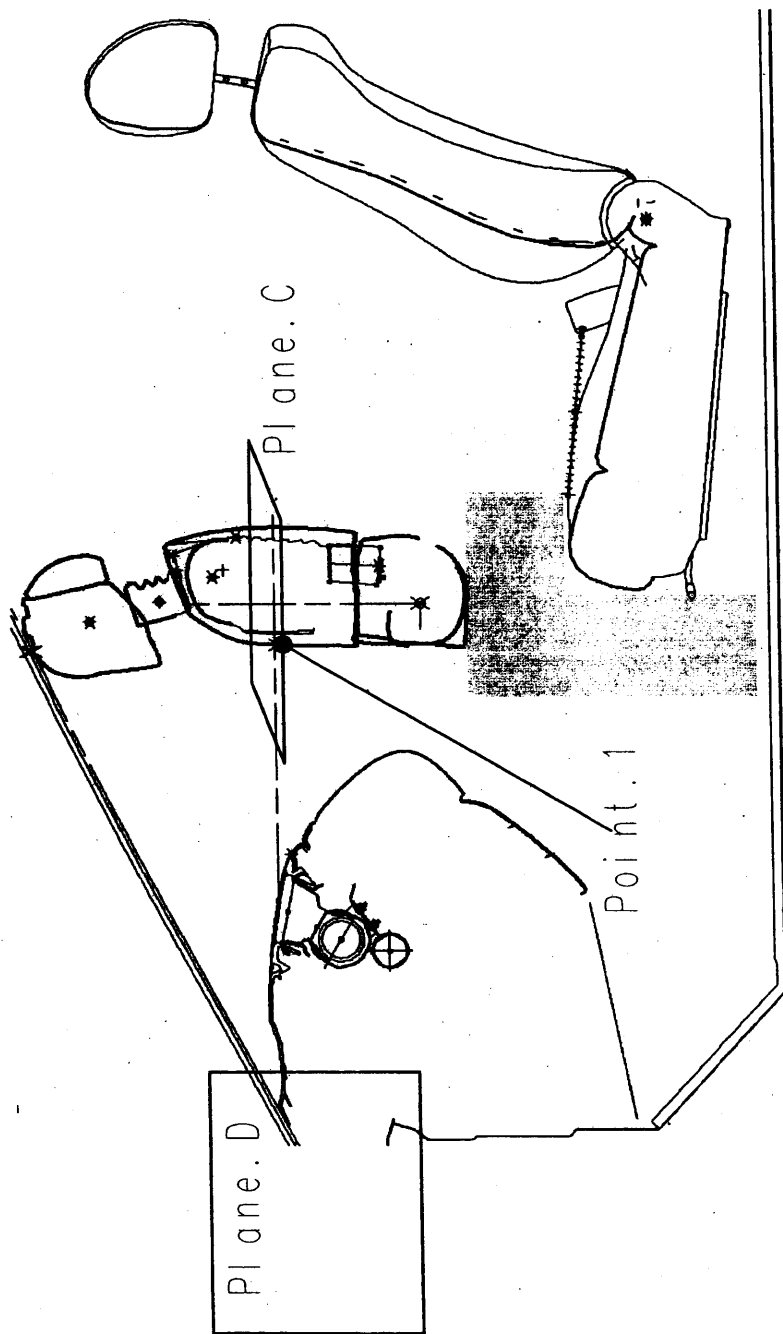


S22.4.3.5. If contact has not been made... apply a force towards the front of the vehicle on the spine of the dummy between the shoulder joints until the head or torso comes into contact with the vehicle's instrument panel.

S22.4.3.6. If necessary, rotate the thighs and rotate the legs and feet so as not to impede the motion of the head/torso into the vehicle's instrument panel.

S22.4.3.7. Rotate the lower arms forward if necessary to prevent contact with or support from the seat.

S22.4.3.8. If necessary, thread with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The thread should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the thread does not interfere with the air bag.



#### 6-year-old Position 1 S24.4.2.4 step 2

S24.4.2.1. There are no seat track, seat height, or seat back angle requirements.

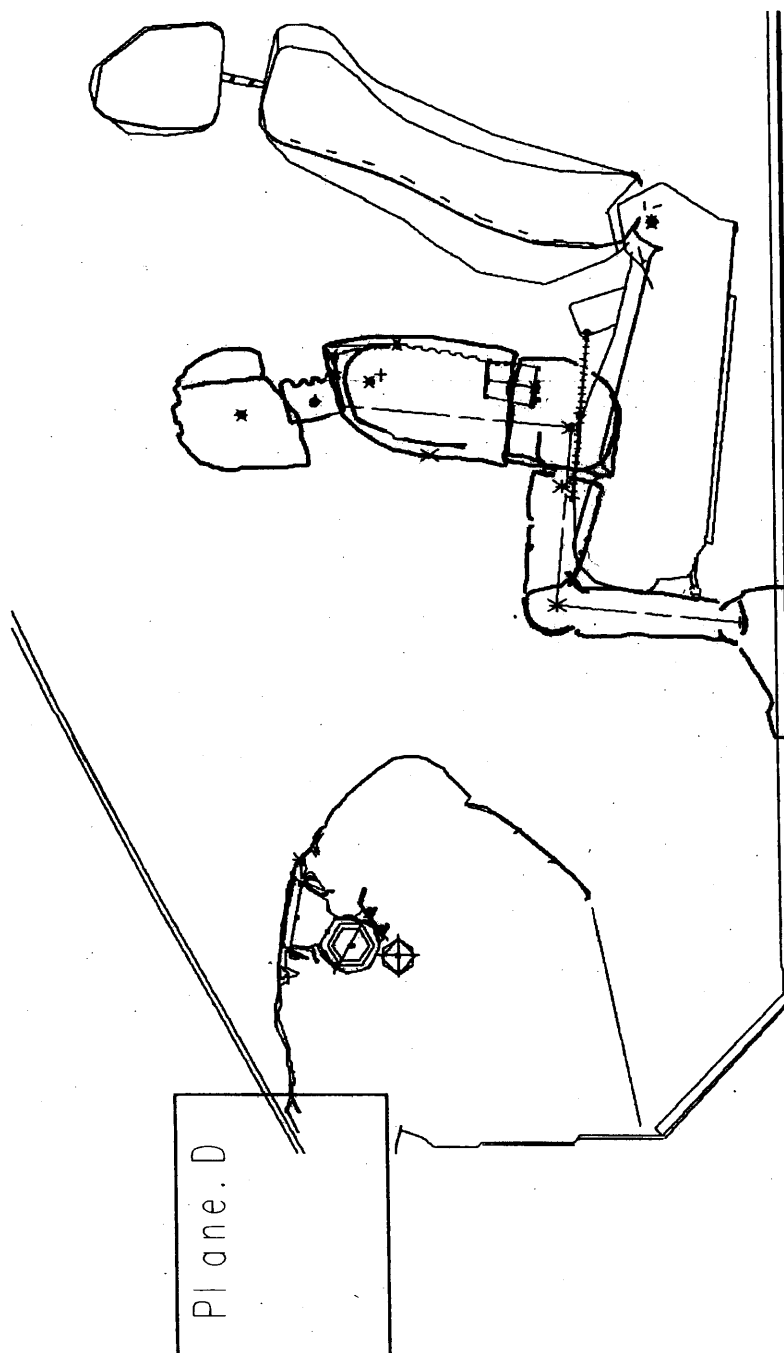
S24.4.2.2. Remove the legs of the dummy at the pelvic interface.

S24.4.2.3. Place the dummy's midsagittal plane coincident with Plane D.

S24.4.2.4. With the dummy's thorax instrument cavity rear face 6 degrees forward of the vertical and Point 1 in Plane C, move the dummy forward until Point 1 contacts the instrument panel. If the dummy's head contacts the windshield and keeps Point 1 from contacting the instrument panel, lower the dummy until there is no more than 5 mm (0.2 in) clearance between the head and the windshield.

S24.4.2.5. Position the upper arms parallel to the spine and rotate the lower arms forward (at the elbow joint) sufficiently to prevent contact with or support from the seat.

S24.4.2.6. Use the seat adjustments (fore-aft, height) to keep the dummy in position. If necessary, thread with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. The thread should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the thread does not

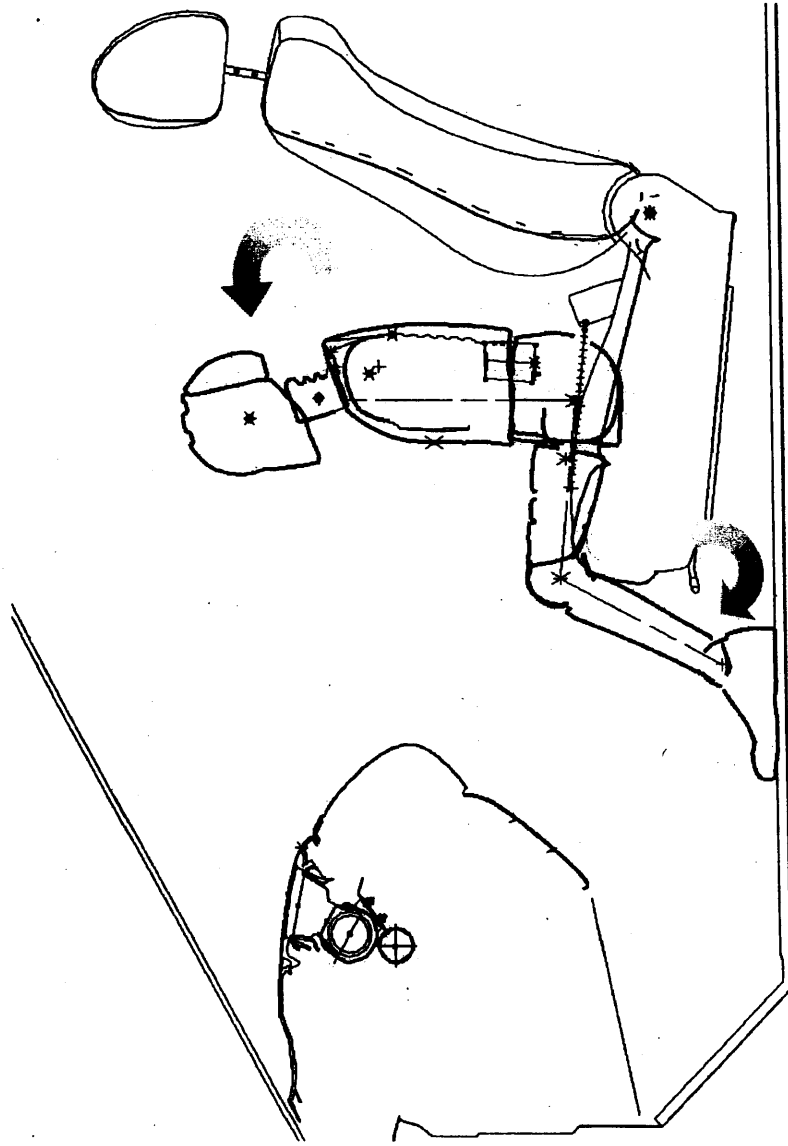


### 6-year-old Position2 S24.4.3.2.1

S24.4.3.1. Place the passenger seat in the full rearward seating position. Place the seat back in the nominal design position for a 50th percentile adult male (S8.1.3) as specified by the vehicle manufacturer. If adjustable in the vertical direction, place the seat in the mid-height position.

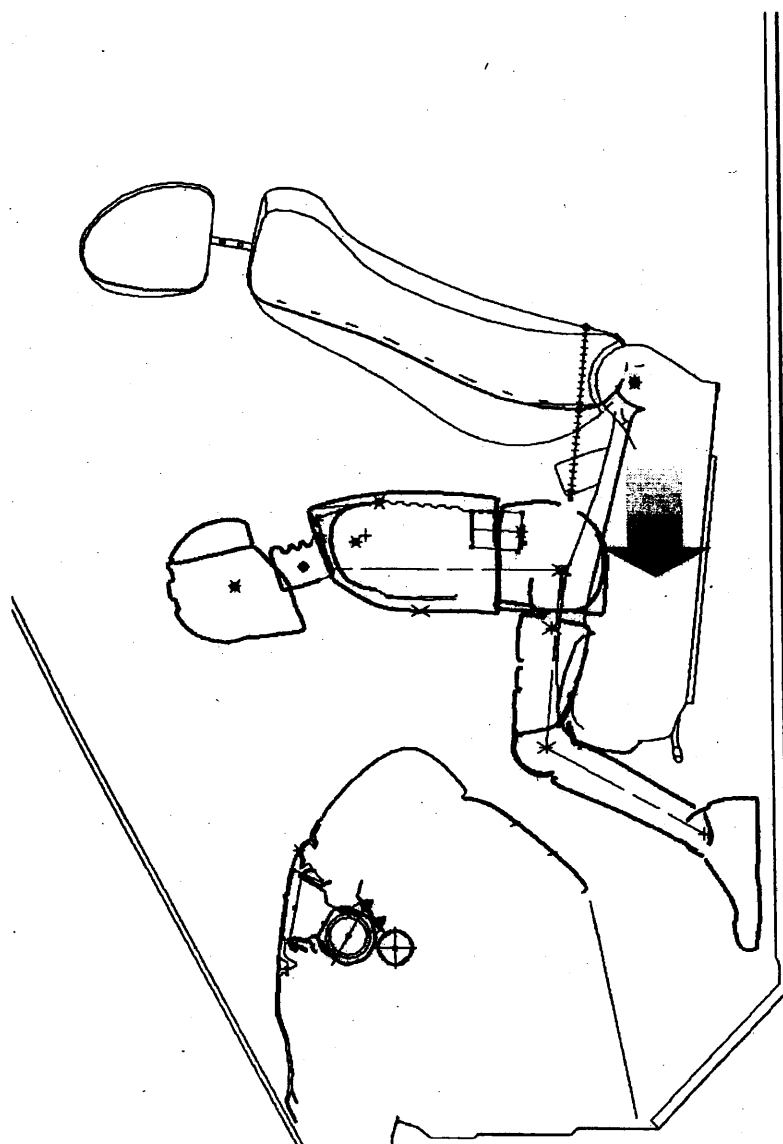
S24.4.3.2. Place the dummy in the front passenger seat such that:

S24.4.3.2.1. The dummy's midsagittal plane is coincident with Plane D. With the thighs on the seat, initially set the thighs perpendicular to the torso and the legs perpendicular to the thighs. Position the upper arms parallel to the torso and rotate the lower arms forward (at the elbow) sufficiently to prevent contact with or support from the seat.



6-year-old Position2 S24.4.3.2.2

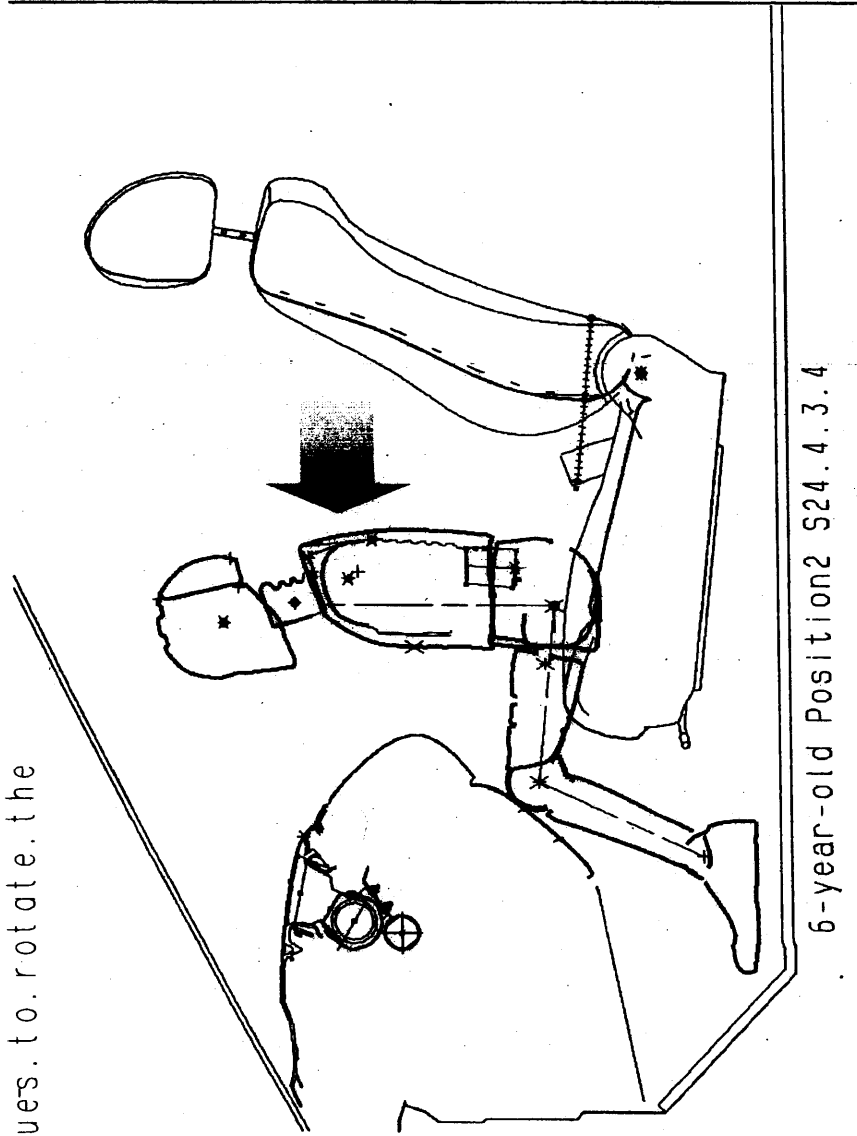
S24.4.3.2.2. The dummy is positioned in the seat such that the legs rest against the front of the seat and such that the dummy's thorax instrument cavity rear face is 6 degrees forward of vertical. If it is not possible to position the dummy with the legs in the prescribed position, rotate the legs forward until the dummy is resting on the seat with the feet positioned flat on the floorboard.



6-year-old Position2 S24.4.3.3

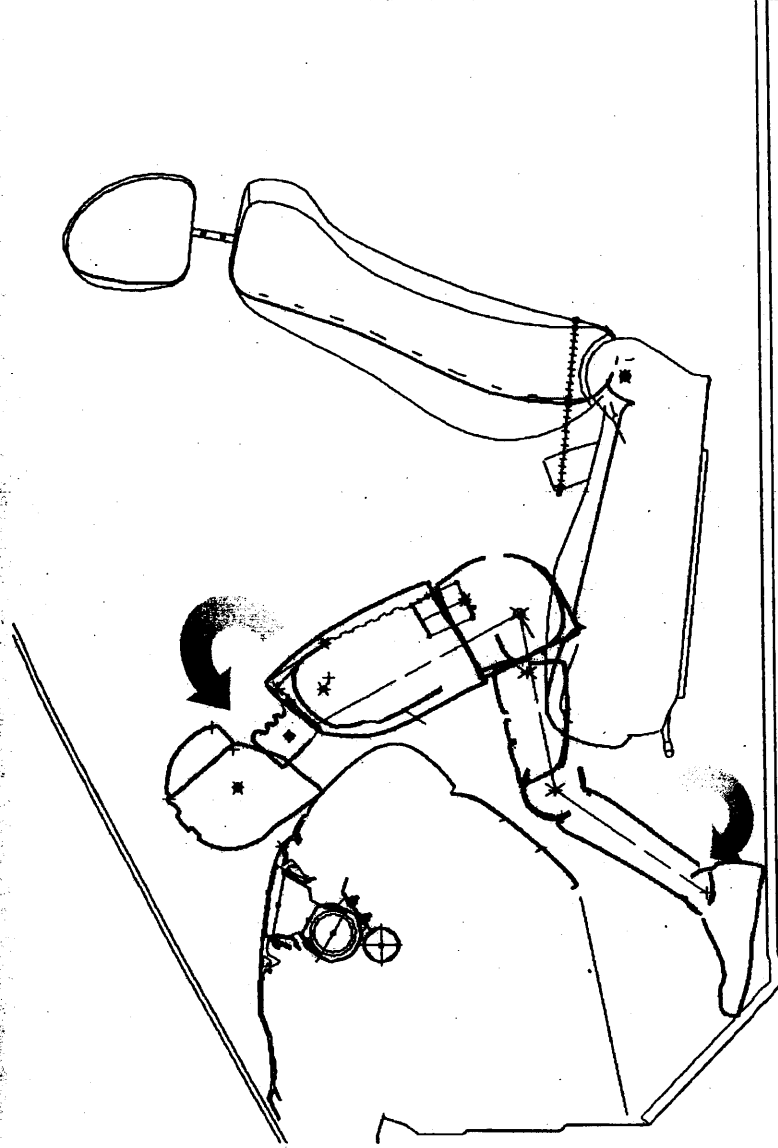
S24.4.3.3. Move the seat forward, while maintaining the thorax instrument cavity rear face orientation until any part of the dummy contacts the vehicle's instrument panel.

In this phase of dummy set, Honda continues to rotate the torso.



6-year-old Position2 S24.4.3.4

S24.4.3.4. If contact has not been made with the vehicle's instrument panel at the full forward seating position of the seat, slide the dummy forward on the seat 190 mm (7.5 in) or until contact is made, whichever is first. Maintain the thorax instrument cavity rear face orientation.



6-year-old Position2 S24.4.3.6



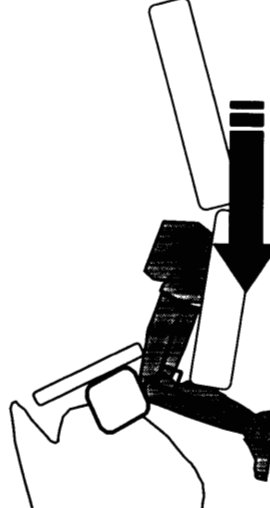
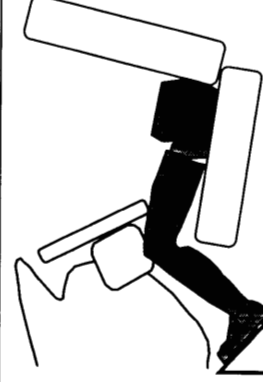
S24.4.3.5. If contact has not been made, apply a force towards the front of the vehicle on the spine of the dummy between the shoulder joints until the head or torso comes into contact with the vehicle's instrument panel.

S24.4.3.6. If necessary, rotate the thighs and rotate the legs and feet so as not to impede the motion of the head/torso into the vehicle's instrument panel.

S24.4.3.7. Rotate the lower arms forward if necessary to prevent contact with or support from the seat.

S24.4.3.8. If necessary, thread with a maximum breaking strength of 311 N (70 lb) and spacer blocks may be used to support the dummy in position. Thread should support the torso rather than the head. Support the dummy so that there is minimum interference with the full rotational and translational freedom for the upper torso of the dummy and the thread does not interfere with the air bag.

## Followings are HONDA's concerns for Final Rules.

No	Section	Situation	Issues
1.	S16.3.2.1.6 (Driver) S16.3.3.1.6 (Passenger)		<p>"Push rearward ...until the angle between dummy's thighs and legs begins to change."</p> <p>This procedure does not have good repeatability. Honda recommends to use AF5% H point for this procedure.</p>
2.	S16.3.2.1.8 (Driver)		<p>"Before ... a dummy leg contacts the vehicle interior, position the seat at the next detent where there is no contact. ..."</p> <p>- is the contacting with steering wheel defined as the contacting with vehicle interior?</p>
3.	S16.3.2.1.8 S16.3.2.2.3 (Driver)		<p>"Before ... a dummy leg contacts the vehicle interior, position the seat at the next detent where there is no contact. ..."</p> <p>- is the contacting with steering column cover defined as the contacting with vehicle interior?</p>
4.	S16.3.2.3.3 S16.3.2.3.4 (Driver)		<p>"Place the left foot of the toe board and the floor pan."</p> <p>- Honda recommends, if the vehicle is equipped with foot rest, the left foot should be placed on the foot rest.</p>

# Seat Position Definition

## Positions of Concern:

- AF05: P1 - S26.2.3, S26.2.9      P2 - S26.3.1, S26.3.8  
 6YO: ✓ P1 - S24.4.2.1, S24.4.2.6      P2 - S24.4.3.1 ✓  
 3YO: P1 - S22.4.2.1, S22.4.2.7      P2 - S22.4.3.1 ✓

## Recommendations:

The following items must be clearly defined because they influence dummy behavior and injury values.

- Vertical height
- (Method of measuring Mid?)
- Angle of seat back
- Seat slide position
- Height of headrest
- Lumbar support

Where?



In case of 2 Vertical

# AF05 Initial Position

## Positions:

AF05: P1 - S26.2.4, P2 - S26.3.4

- Dummy kinematics depend on dummy initial position.

EX: If dummy is put on front edge of seat, ,  
as opposed to against seatback, dummy  
behavior changes.

TMC Recommendation: Define a standard initial  
position which always positions dummy with  
legs resting against front of seat

# Initial Seat Position

	Seat slide	Seat back angle	Head rest height	Vertical height	Lumber support
AF5 Pos.1	R/M	AF5 In Position	AF5 In Position	mid-height	AF5 In Position
AF5 Pos.2	↑	↑	↑	↑	↑
6YO Pos.1	↓	↓	L/M	↓	↑
6YO Pos.2	R/M	AM50 N	↑	mid-height	↑
3YO Pos.1	↑	↑	↑	↑	↑
3YO Pos.2	↑	↑	↑	↑	↑

# Definition of Point 1

## Positions:

6YO-P1 - S24.4.1.1, S24.4.2.4

3YO-P1 - S22.4.1.1, S22.4.2.2

- Point 1 located on chest/rib plate under skin.
- Alignment of plate and skin is not consistent.



TMC Recommendation: Define a reference point using visible dummy part, I.e., neck bracket, H/P, etc.

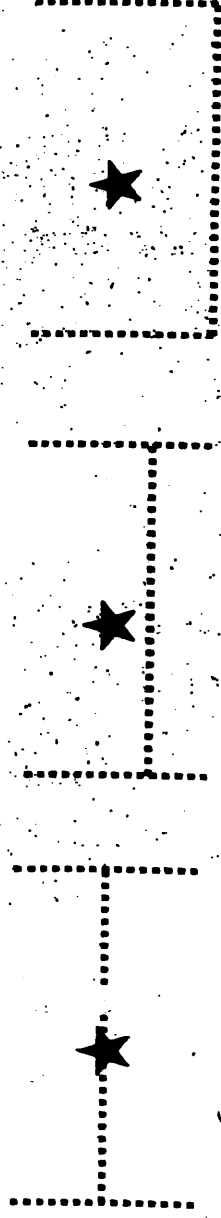
# Definition of Planes D & C

## Positions:

6YO: S24.4.1.2, S24.4.2.3

3YO: S22.4.1.2, S22.4.1.3

- If tear seam is not visible, what is the method for locating the geometric center to define Planes D & C? (Is this manufacturer instruction?)
- For each of the following tear seam patterns, how is the geometric center defined?



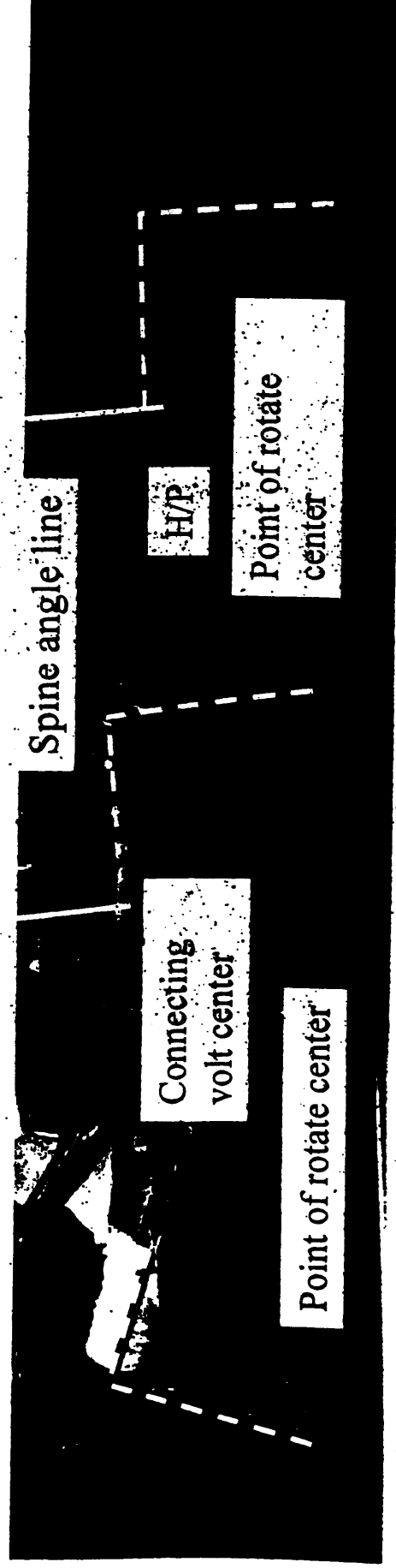
# Angle Definition

AF05: P1 - S26.2.5, P2 - S26.3.5

6YO: P2 - S24.4.3.2.1

3YO: P2 - S22.4.3.2.1

- The definition of a standard line (from torso to knee, knee to ankle, etc.) is unclear in order to measure angle on dummy. Toyota recommends the following:



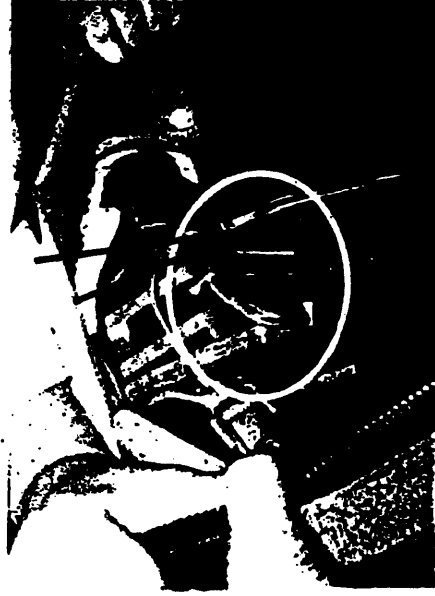
<AF5>

<6YO>

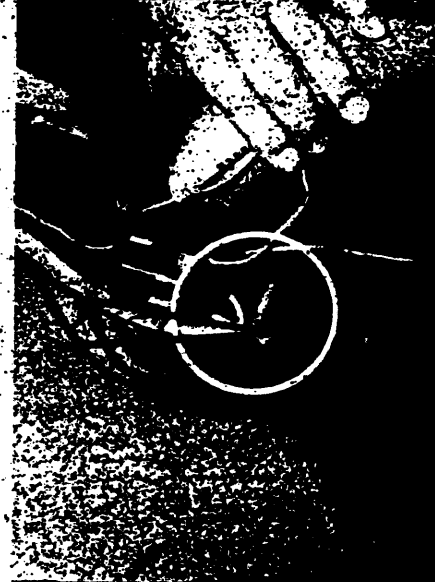
<3YO>

# Position where upper body angle is measured

- Are the following indications correct for the 'dummy's thorax instrument cavity rear face'?



<AF5>

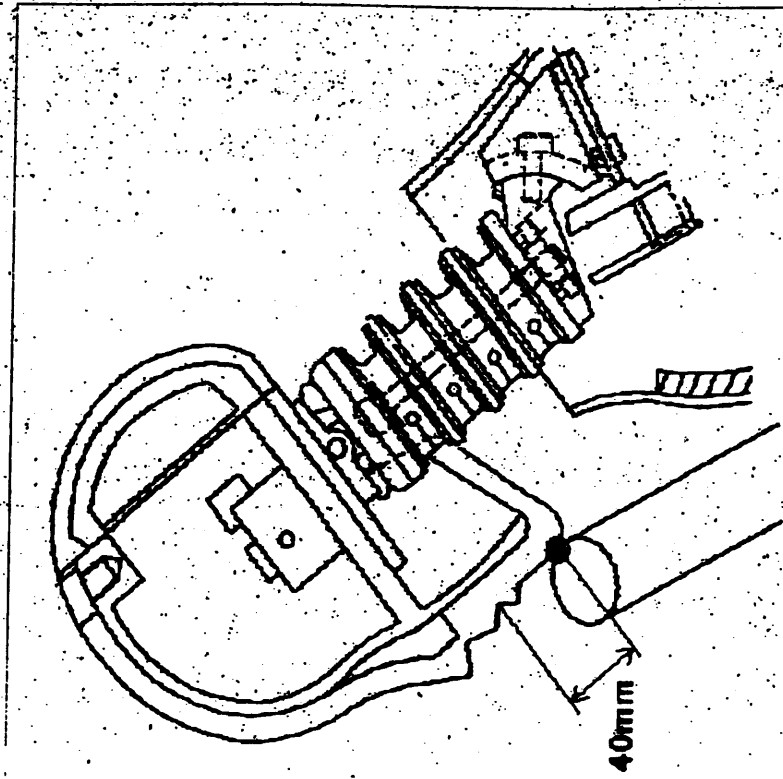


<6Y0>



<3Y0>

## Toyota recommend of Position 2



The point of 40mm below from the center of the mount on the chin.

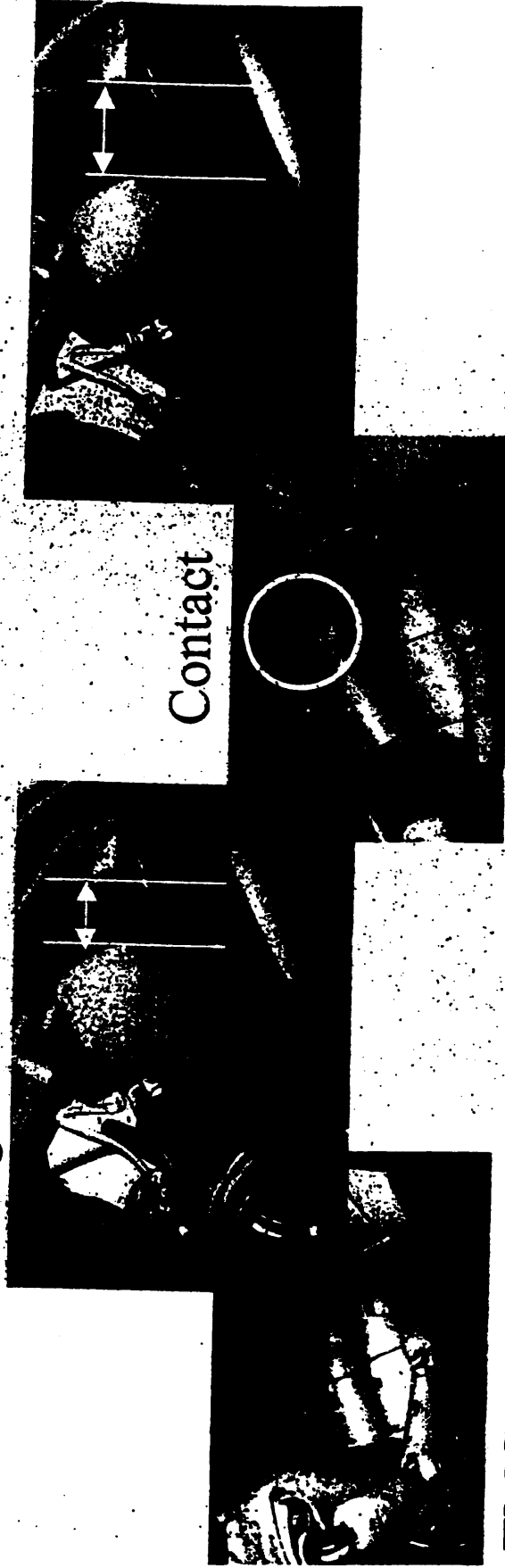
# Knee Spacing(1)

## Sections:

6YO: P2 - S24.4.3.3, S24.4.3.4

3YO: P2 - S22.4.3.3, S22.4.3.4

Changes in knee spacing effect the relative pelvis movement, the upper body angle, and the height of the head.



TMC recommendation: Locate knees parallel along the longitudinal centerline of the dummy's knees.

# Knee Spacing(2)

## Positions:

AF05 : P1 - S26.2.8 P2 - S26.3.5

- Since the standard does not specify knee spacing, contact between the steering wheel and lower limbs varies.

TMC recommendation:

AF05(driver) - interval used  
for in-position test

-or-

AF05 (passenger) - in-  
position  
interval(160~170mm)



# Contact Load to Head, Knee, and Torso

## Positions:

AF05: P1 - S26.2.8; P2 - S26.3.7

6YO: P1 - S24.4.2.4, P2 - S24.4.3.2.2, S24.4.3.3, 4, 5

3YO: P1 - S22.4.2.4, P2 - S22.4.3.2.2, S22.4.3.3, 4, 5

- The effects of the contact pre-load are not understood.



TMC Recommendation: A clearance between 0 and 5 mm be afforded for head, knee, and torso for each related test.

# Behavior After Contact (1)

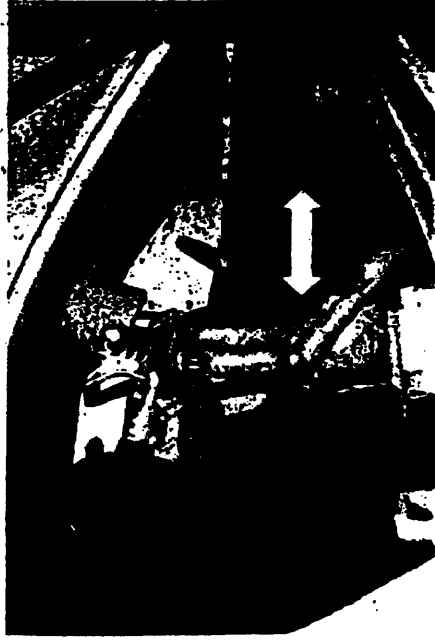
## Positions:

6YO: P1 - S24.4.2.4

3YO: P1 - S22.4.2.4

If the dummy's head contacts the windshield and keeps Point 1 from contacting the instrument panel, lower the dummy until there is no more than 5 mm (0.2 in) clearance between the head and the windshield.

- When the head comes in contact first (with W/S and header, etc.), the standard suggests lowering the dummy.
- However, the standard does not stipulate further movement for chest contact with IP.



TMC recommendation: After lowering dummy, instruct engineer to insure chest contact with IP.

## Behavior After Contact (1)

- S22.4.2.4 With the dummy's thorax instrument cavity rear face vertical and Point 1 in Plane C, move the dummy forward until Point 1 the dummy's chest contacts the instrument panel.
- If the dummy's head contacts the windshield and keeps Point 1 from contacting the instrument panel, lower the dummy until there is no more than 5 mm (0.2 in.) clearance between the head and the windshield, and the chest contacts the instrument panel.

# Behavior after contact (2)

## Positions:

6YO: P2 - S24.4.3.5

3YO: P2 - S22.4.3.5

- The above wording must be deleted to insure contact to IP using test sequence.



TMC recommendation: Revise the text as follows...

## Behavior after contact (2)

- S22.4.3.5 ~~If contact has not been made~~, apply a force towards the front of the vehicle on the spine of the dummy between the shoulder joints until the head or torso comes into contact with the vehicle's instrument panel.

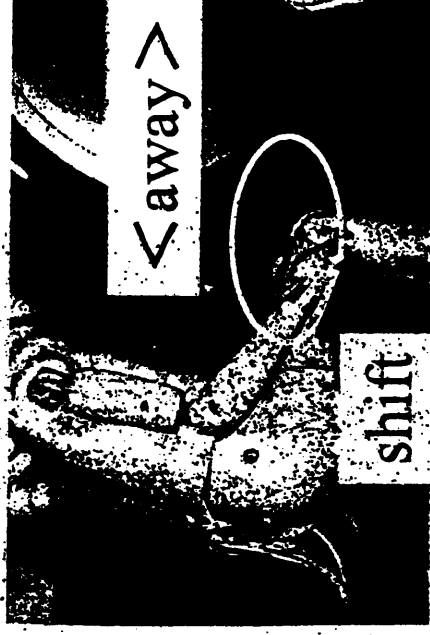
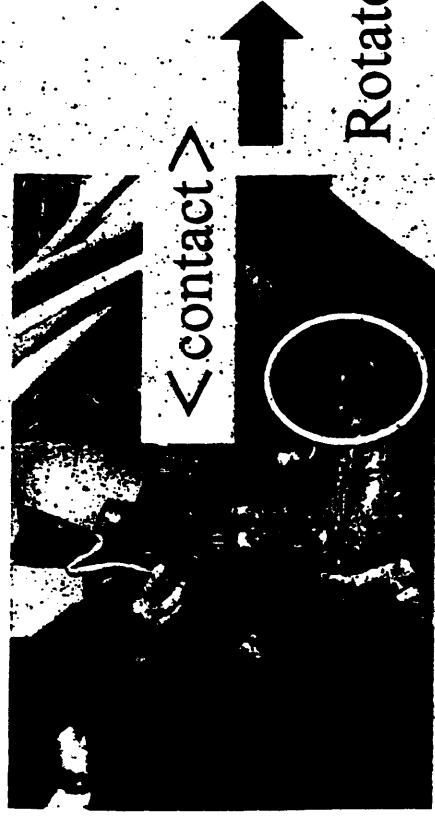
# Upper body rotation after contact

## Positions:

6YO: P2 - S24.4.3.5

3YO: P2 - S22.4.3.5

- Can the knee and instrument panel be apart?
- There is a possibility to shift forward when dummy rotates.



TMC recommendation:

In rotating, knees can be apart from the instrument panel, but thighs may not shift forward.

# Spacer, String, and Foot Position(1)

## Position:

6YO: P2 S24.4.3.6

The same posture exists when the fixation method is different.

TMC recommends the following:



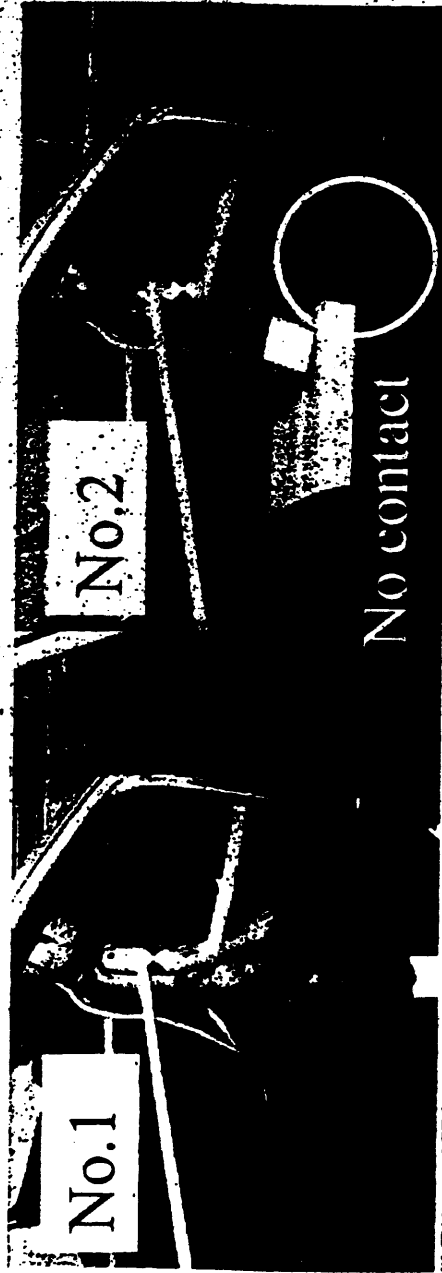
<fixes with foot position>

<fixes with string>

<fixes with spacer>

# Spacer, String, and Foot Position(2)

Positions: 3YO: P1 - S22.4.2.6, P2 - S22.4.3.6



# Spacer, String, and Foot Position(3)

Positions: AF05: P1 - S26.2.5, P2 - S26.3.5

- The same posture exists when the fixation method is different.  
TMC recommends the following:



<fixes with spacer & foot position>



<fixes with spacer & string>

# Spacer and String Specs

## Positions:

AF05:P1 S26.2.9 P2 S26.3.8

6YO:P1 S24.4.2.6 P2 S24.4.3.8

3YO:P1 S22.4.2.7 P2:S22.4.3.8

- Could you specify the material, strength, shape, and the arrangement method of spacer?
- Could you specify the material, width, quantity needed, and placement for the string?
- The materials should be readily available.

# Position of Arm

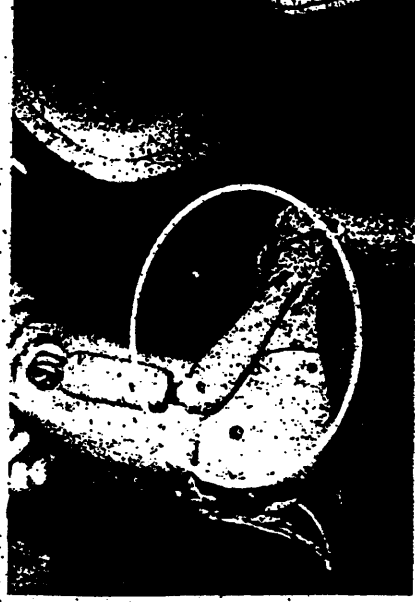
## Positions:

AF05: P1&P2 There is no definition.

6YO: P1 - S24.4.2.5, P2 - S24.4.3.7

3YO: P1 - S22.4.2.5, P2 - S22.4.3.7

TMC recommends the following:



Place the dummy's upper arms adjacent to the torso and the palms of the dummy in contact with the outside of the thighs.

# Neck Deformation

(aging effects, dummy-to-dummy variability)

AF05: P1 - S26.2.8, P2 - S26.3.7

6YO: P1 - S24.4.2.4, P2 - S24.4.3.5

3YO: P1 - S22.4.2.4, P2 - S22.4.3.5

There is a possibility that:

- distance of steering wheel-head/chest (AF05), and;
- height of head (6YO, 3YO)

change because the head rotation angle (by self-weight) is different according to the stiffness of the neck.

TMC recommendation:

A definition of angle between head and upper torso is needed before dummy initial positioning.

## Other Request

- In the future, TMC would like to also discuss concerns with the AF05 In-Position Test Procedure in addition to the concerns outlined for OOP and Cinching.

**Porsche 208 Workshop Questions**

ATTACHMENT

D

- 1.) ✓ In S22.4.2, S24.4.2, S26.2 and S26.3.1 low risk deployment test procedures, there are no specifications for seat back angle provided. How far may a position for the dummy deviate from the original design position of the 50th percentile male adult?
- 2.) In S24.4.2.2 (chest on instrument panel – low risk deployment), it is specified that the legs of the dummy are to be removed, however, in S24.4.3 (head on instrument panel – low risk deployment) there is no discussion about removing the legs. Is it allowed to remove the legs for S24.4.3 as in S24.4.2.2?

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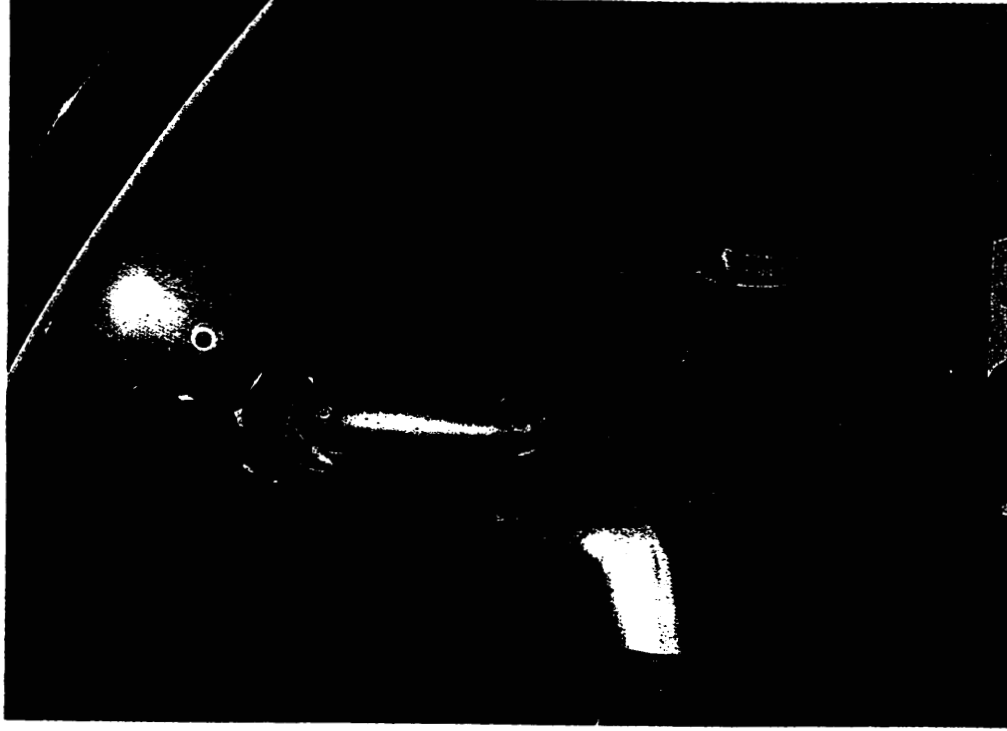
Volvo asked the following questions:

1. Can you abbreviate "passenger air bag off" with "pass air bag off"?
2. Can the "pass air bag off" indicator be on the rear view mirror?

# FMVSS 208 Advanced Airbags

3-year-old child: chest on instrument panel (NB)

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# FMVSS 208 Advanced Airbags

6-year-old child: chest on instrument panel (NB)

with legs



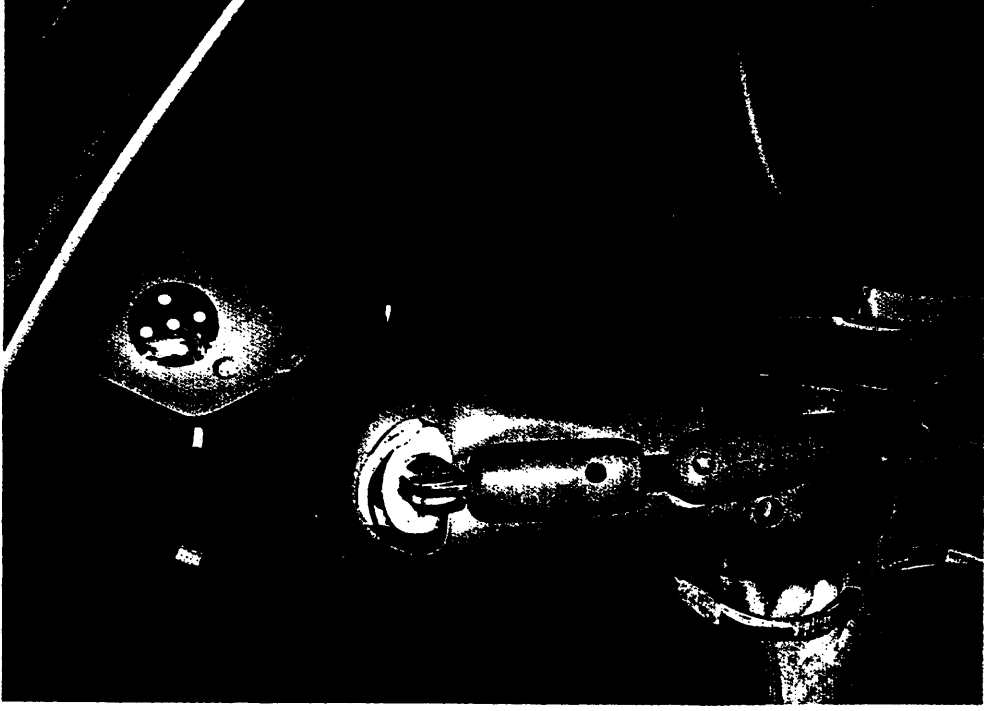
VOLKSWAGEN

Workshop NHTSA

# FMVSS 208 Advanced Airbags

6-year-old child: chest on instrument panel (NB)

without legs

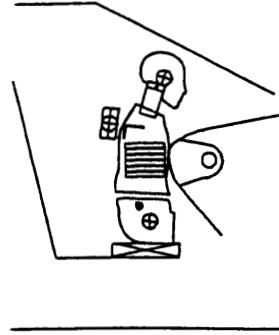
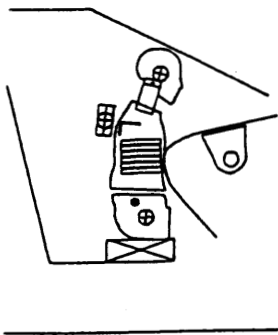


VOLKSWAGEN

Child Position 1 - 6 Year Old Hybrid III - FMVSS 208  
Chest Centered on Cover of Airbag Module with Torso at Specified Angle

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1. Conduct static airbag deployment test in a vehicle or buck with windshield, instrument panel, seat, and any trim that may affect deploying airbag.
2. There are no seat track, seat height, or seat back angle requirements.
3. Center H3-6Y child ATD laterally relative to geometric center of airbag tear seam\* (legs are removed at pelvis).
4. Set angle of torso so that upper spine plate is  $6^{\circ}$  (+/-  $2^{\circ}$ ) forward of vertical.
5. While maintaining angle of torso, move ATD forward until head or torso contacts instrument panel. With ATD against I/P, set vertical position of sternum's mid-point to be horizontally in-line with geometric center of air bag tear seam\* when torso is against I/P.

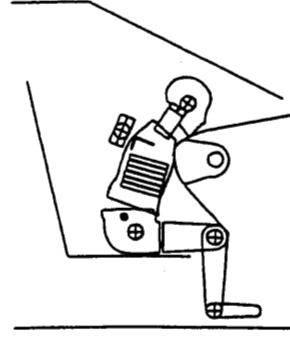
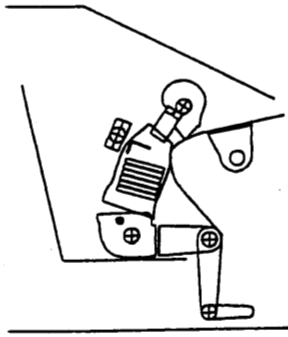
With ATD against I/P, position head within 5 mm (0.2 inch) of windshield in cases where interference of head with windshield prevents achievement of prescribed sternum position.

Set ATD on a spacer in cases where seat does not allow prescribed position.

6. Adjust upper arms to be parallel with spine. If needed, use 1 inch masking tape (use minimum breaking strength) to stabilize torso in test position.
7. Deploy the highest inflation level that could be commanded for any seat position in a  $0^{\circ}$  frontal barrier impact at 26 km/h (16 mph). If deployment cannot occur in a 26 km/h (16 mph) barrier, deploy low level. Measure HIC (15 ms); neck loads at occipital condyles; neck  $N_{ij}$ ; chest compression; upper and lower sternum compression rate from sternum and spine accelerometers; chest triaxial acceleration (3 ms). Analyze data to (300 ms).

\* If air bag design does not have an obvious tear seam, align ATD relative to area through which the air bag is designed to first emerge and begin interaction with an occupant.

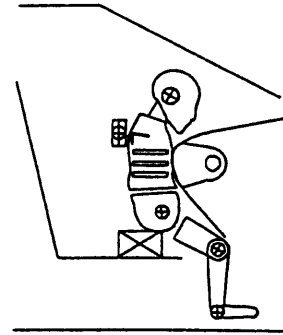
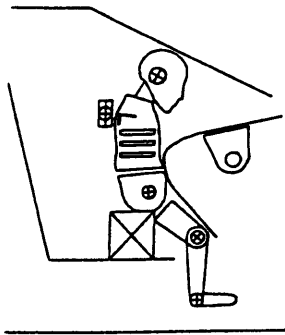
Child Position 2 - 6 Year Old Hybrid III - FMVSS 208  
Head on Instrument Panel with ATD Sitting Forward on Seat



1. Conduct static airbag deployment test in a vehicle or buck with windshield, instrument panel, seat, and any trim that may affect deploying airbag.
  2. Adjust seat-back to nominal position for 50<sup>th</sup> male. Move seat to full rear and mid vertical.
  3. Sit H3-6Y child ATD on vehicle seat (upper legs are to be horizontal). Center ATD laterally relative to geometric center of airbag tear seam.
  4. Set angle of torso so that upper spine plate is 6° (+/- 2°) forward of vertical.
  5. While maintaining angle of torso, move seat forward until head, torso or knees of ATD contact instrument panel. If necessary to achieve contact, slide ATD forward on seat 190 mm (7.5 inches) or until contact is made, whichever is first.
  6. If contact was not been made in Step 5, rotate torso forward until head or chest contacts instrument panel. If head or torso first contacts instrument panel in Step 5, maintain torso angle that results from Step 4.
  7. Adjust upper arms to be parallel with torso. If needed, use 1 inch masking tape (use minimum breaking strength) to stabilize torso in test position.
  8. Deploy the highest inflation level that could be commanded for any seat position in a 0° frontal barrier impact at 26 km/h (16 mph). If deployment cannot occur in a 26 km/h (16 mph) barrier, deploy low level. Measure HIC (15 ms); neck loads at occipital condyles; neck  $N_{ij}$ ; chest compression; upper and lower sternum compression rate from sternum and spine accelerometers; chest triaxial acceleration (3 ms). Analyze data to (300 ms).
- \* If air bag design does not have an obvious tear seam, align ATD relative to area through which the air bag is designed to first emerge and begin interaction with an occupant.

Child Position 1 - 3 Year Old Hybrid III - FMVSS 208

Chest Centered on Cover of Airbag Module with Torso at Specified Angle



1. Conduct static airbag deployment test in a vehicle or buck with windshield, instrument panel, seat, and any trim that may affect deploying airbag.
2. There are no seat track, seat height, or seat back angle requirements.
3. Center H3-3Y child ATD laterally relative to geometric center of airbag tear seam\*.
4. Set angle of torso so that upper spine plate is vertical, within +/- 2 degrees.
5. While maintaining angle of torso, move ATD forward until head or torso contacts instrument panel. With ATD against I/P, set vertical position of sternum's mid-point to be horizontally in-line with geometric center of air bag tear seam when torso is against I/P.

With ATD against I/P, position head within 5 mm (0.2 inch) of windshield in cases where interference of head with windshield prevents achievement of prescribed sternum position.

Set ATD on a spacer in cases where seat does not allow prescribed position.

6. Adjust upper arms to be parallel with spine. If needed, use 1 inch masking tape (use minimum breaking strength) to stabilize torso in test position.
7. Deploy the highest inflation level that could be commanded for any seat position in a 0° frontal barrier impact at 26 km/h (16 mph). If deployment cannot occur in a 26 km/h (16 mph) barrier, deploy low level. Measure HIC (15 ms); neck loads at occipital condyles; neck  $N_{ij}$ ; chest compression; upper and lower sternum compression rate from sternum and spine accelerometers; chest triaxial acceleration (3 ms). Analyze data to (300 ms).

\* If air bag design does not have an obvious tear seam, align ATD relative to area through which the air bag is designed to first emerge and begin interaction with an occupant.

Child Position 2 - 3 Year Old Hybrid III - FMVSS 208  
Head on Instrument Panel with ATD Sitting Forward on Seat



1. Conduct static airbag deployment test in a vehicle or buck with windshield, instrument panel, seat, and any trim that may affect deploying airbag.
  2. Adjust seat-back to nominal position for 50<sup>th</sup> male. Move seat to full rear and mid vertical.
  3. Sit H3-3Y child ATD on vehicle seat (upper legs are to be horizontal). Center ATD laterally relative to geometric center of airbag tear seam\*.
  4. Set angle of torso so that upper spine plate is vertical, within +/- 2 degrees.
  5. While maintaining angle of torso, move seat forward until head, torso or knees of ATD contact instrument panel. If necessary to achieve contact, slide ATD forward on seat 190 mm (7.5 inches) or until contact is made, whichever is first.
  6. If contact was not been made in Step 5, rotate torso forward until head or chest contacts instrument panel. If head or torso first contacts instrument panel in Step 5, maintain torso angle that results from Step 4.
  7. Adjust upper arms to be parallel with torso. If needed, use 1 inch masking tape (use minimum breaking strength) to stabilize torso in test position.
  8. Deploy the highest inflation level that could be commanded for any seat position in a 0° frontal barrier impact at 26 km/h (16 mph). If deployment cannot occur in a 26 km/h (16 mph) barrier, deploy low level. Measure HIC (15 ms); neck loads at occipital condyles; neck  $N_{ij}$ ; chest compression; upper and lower sternum compression rate from sternum and spine accelerometers; chest triaxial acceleration (3 ms). Analyze data to (300 ms).
- \* If air bag design does not have an obvious tear seam, align ATD relative to area through which the air bag is designed to first emerge and begin interaction with an occupant.

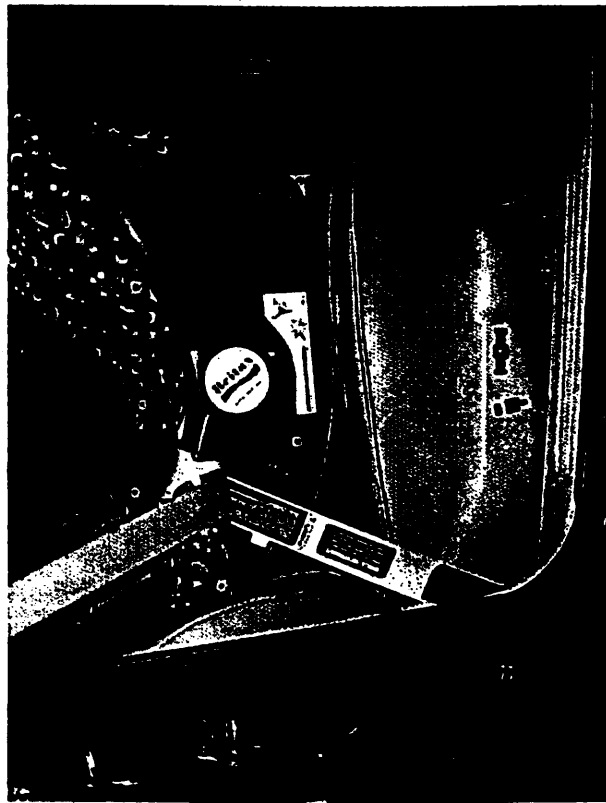
Delphi

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DELPHI

# RFIS Pivots Under Belt Tension

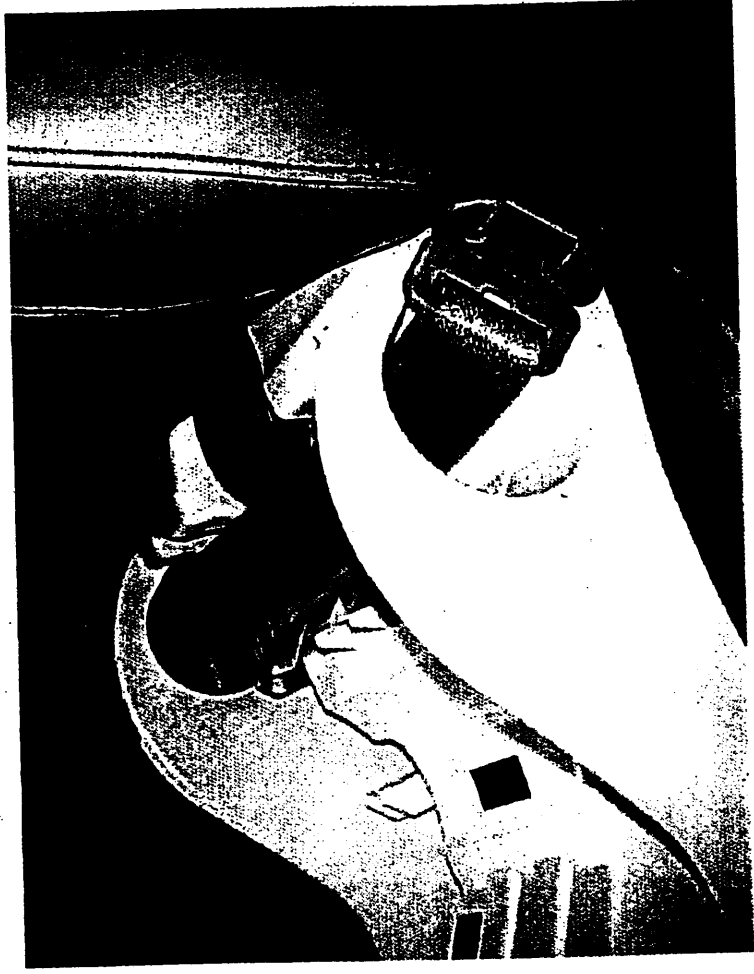
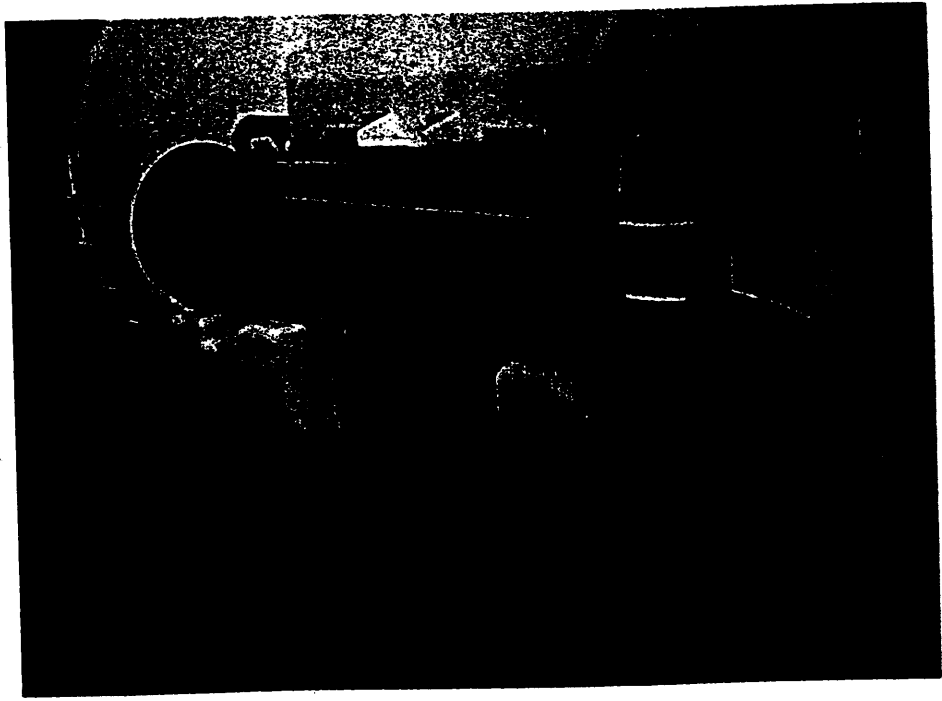
Seat installed per directions



Seat back reclined forward  
and seat moved forward



# Belt Tension Slack From Caught Buckle



exclusivity rights for the exhibition of the program in question. Contracts entered on or after November 29, 2000, must contain the following words: "the licensee [or substitute name] shall, by the terms of this contract, be entitled to invoke the protection against duplication of programming imported under the Statutory Copyright License, as provided in § 76.122 or § 76.123 of the FCC rules [or 'as provided in the FCC's satellite network non-duplication or syndicated exclusivity rules']." Contracts entered into prior to November 29, 2000, must contain the foregoing language plus a clear and specific reference to the licensee's authority to exercise exclusivity rights as to the specific programming against signal carriage by the satellite carrier in question, or by satellite carriage in general in a protected, geographic or specified zone. In the absence of such a specific reference in contracts entered into prior to November 29, 2000, the provisions of these rules may be invoked only if the contract is amended to include the specific language referenced in this section or a specific written acknowledgment is obtained from the party from whom the broadcast exhibition rights were obtained that the existing contract was intended, or should now be construed by agreement of the parties, to include such rights. A general acknowledgment by a supplier of exhibition rights that specific contract language was intended to convey rights under these rules will be accepted with respect to all contracts containing that specific language. Nothing in this section shall be construed as a grant of exclusive rights to a broadcaster where such rights are not agreed to by the parties.

#### § 76.125 Indemnification contracts.

No television broadcast station licensee shall enter into any contract to indemnify a satellite carrier for liability resulting from failure to delete programming in accordance with the provisions of this Subpart unless the licensee has a reasonable basis for concluding that such program deletion is not required by this Subpart.

#### § 76.127 Satellite sports blackout.

(a) Upon the request of the holder of the broadcast rights to a sports event, or its agent, no satellite carrier shall retransmit to subscribers within the area comprising the specified zone a "nationally distributed superstation" or "network station" carrying the live television broadcast of a sports event if the event is not available live on a television broadcast station meeting the criteria specified in § 76.128. For

purposes of this section, if there is no television station licensed to the community in which the sports event is taking place, the applicable specified zone shall be that of the television station licensed to the community with which the sports event or team is identified, or, if the event or local team is not identified with any particular community, the nearest community to which a television station is licensed.

(b) Notification of the programming to be deleted pursuant to this Section shall include the following information:

(1) The name and address of the party requesting the program deletion;

(2) The date, time and expected duration of the sports event the television broadcast of which is to be deleted;

(3) The call letters of the nationally distributed superstation or network station(s) from which the deletion is to be made;

(4) The U.S. postal zip codes that encompass the specified zone.

(c) Notifications given pursuant to this section must be received by the satellite carrier, as to regularly scheduled events, within forty-eight (48) hours after the time of the telecast to be deleted is known, and no later than the Monday preceding the calendar week (Sunday through Saturday) during which the program deletion is to be made. Notifications as to events not regularly scheduled and revisions of notices previously submitted, must be received within twenty-four (24) hours after the time of the telecast to be deleted is known, but in any event no later than twenty-four (24) hours from the time the subject telecast is to take place.

(d) A satellite carrier is not required to delete a sports event from an individual subscriber who is located outside the specified zone, notwithstanding that the subscriber lives within a zip code provided by the holder of the broadcast rights pursuant to paragraph (b) of this section.

(e) A satellite carrier is not required to delete a sports event if it has fewer than 1,000 subscribers within the relevant specified zone who subscribe to the nationally distributed superstation or network station carrying the sports event for which deletion is requested pursuant to paragraph (b) of this section.

(f) Notwithstanding paragraph (c) of this section, for sports events to be deleted on or before March 31, 2001, notification must be received by satellite carriers at least 60 full days prior to the day the telecast is to be deleted.

#### § 76.128 Application of sports blackout rules.

The cable and satellite sports blackout rules (§§ 76.111 and 76.127) may apply when the sports event is not available live on any of the following television broadcast stations carried by a cable system or other MVPD:

(a) Television broadcast stations within whose specified zone the community of the community unit or the community within which the sporting event is taking place is located, in whole or in part;

(b) Television broadcast stations within whose Grade B contours the community of the community unit or the community within which the sporting event is taking place is located, in whole or in part;

(c) Television broadcast stations licensed to other designated communities which are generally considered to be part of the same television market (Example: Burlington, Vt.-Plattsburgh, N.Y. or Cincinnati, Ohio-Newport, Ky., television markets);

(d) Television broadcast stations that are significantly viewed, pursuant to § 76.54, in the community unit or community within the specified zone.

#### § 76.130 Substitutions.

Whenever, pursuant to the requirements of the network program non-duplication, syndicated program exclusivity, or sports blackout rules, a satellite carrier is required to delete a television program from retransmission to satellite subscribers within a zip code area, such satellite carrier may, consistent with this Subpart, substitute a program from any other television broadcast station for which the satellite carrier has obtained the necessary legal rights and permissions, including but not limited to copyright and retransmission consent. Programs substituted pursuant to this section may be carried to their completion.

[FR Doc. 00-29028 Filed 11-13-00; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

#### 49 CFR Part 571

[Docket No. NHTSA-2000-8258]

RIN No. 2127-A110

### Federal Motor Vehicle Safety Standards; Occupant Crash Protection

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

**ACTION:** Notice of technical workshop.

**SUMMARY:** This document announces that NHTSA will hold a technical workshop to give NHTSA an opportunity to make sure it understands the petitioners' issues concerning some of the test procedures for the advanced air bag final rule issued earlier this year.

**DATES:** The workshop will be held December 6, 2000, at the address listed below. Lists of persons wishing to participate in the workshop and the names of the vehicle models that participants wish to bring to the workshop to demonstrate test dummy positioning problems should be provided to Ed Jettner at the address or telephone number listed below by November 22, 2000. Due to space and time limitations, NHTSA may have to limit the number of representatives per organization as well as the number of problematic vehicles that will be examined.

**ADDRESSES:** The workshop will be held at the Vehicle Research and Test Center (VRTC), 10820 State Route 347, East Liberty, Ohio 43319. Directions to VRTC and the final agenda will be sent to participants.

**FOR FURTHER INFORMATION CONTACT:** Ed Jettner, Office of Crashworthiness Standards, NPS-11, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590, telephone (202) 366-4917, Fax (202) 366-4329, e-mail [ejettner@nhtsa.dot.gov](mailto:ejettner@nhtsa.dot.gov).

**SUPPLEMENTARY INFORMATION:** On May 12, 2000, NHTSA published a final rule amending Standard No. 208, *Occupant Crash Protection*, to require that future air bags be designed to create less risk of serious air bag-induced injuries than current air bags, particularly for small women and young children; and provide improved frontal crash protection for all occupants, by means that include advanced air bag technology. (65 FR 30680; Docket No. NHTSA 00-7013; Notice 1) The period for submitting petitions for reconsideration closed June 26, 2000.

NHTSA received nine petitions for reconsideration of the final rule, some of which raised questions concerning some of the new test procedures in the final rule. We also received three requests for clarification of those procedures. To enable interested parties and NHTSA personnel to better understand the questions concerning those test procedures, we believe that it would be desirable to hold a technical workshop. The workshop will be limited to those procedures that petitioners have raised as legitimate technical issues. It will not

address procedures that were the subject of policy-based objections. For example, NHTSA did not provide detailed test procedures on how to position the child or child dummy in static suppression tests. This lack of specificity was intentional since we wanted this technology to be robust enough to protect all children generally situated in the positions required by the final rule. While there may be a difference of opinion about the appropriateness of the agency's position, there is no need to review that issue at a technical workshop. The agency will respond to this and other non-technical issues in the notice responding to the petitions for reconsideration.

We believe that the petitioners raised legitimate technical issues about the following test procedures, and therefore that only those issues should be addressed at the workshop:

1. Cinchdown procedure for child restraints in vehicles equipped with static suppression technology to comply with the advanced air bag requirements.

2. Procedures for positioning the 6-year-old and 3-year-old child dummies in the passenger seating position in vehicles equipped with low-risk deployment technology to comply with the advanced air bag requirements. The workshop will address the method used to achieve the final position and the effect that the vehicle seat may have on achieving that position.

3. Procedures for positioning for the 5th percentile adult female dummy in the driver seating position for demonstrating compliance with the low-risk deployment test of the advanced air bag requirements. The workshop will address the method used to achieve the final chin-on-rim position, and the effect that the vehicle seat may have on achieving the chin-on-rim and chest-on-module positions.

NHTSA will announce any resolution of these issues in the notice responding to the petitions for reconsideration.

Several petitioners noted that they had problems with the above-listed test procedures in particular vehicles. We request that participants who have experienced problems with specific vehicles bring the vehicles to the workshop so that we may address as many of the different vehicle configurations as possible. If no problematic vehicles are presented at the workshop, we will limit the workshop to the cinchdown procedure for child seats.

We request that persons wishing to participate in the workshop notify Ed Jettner not later than November 22, 2000. Interested persons should indicate the company or organization which they

represent. Interested persons wishing to bring a particular vehicle to demonstrate the dummy positioning difficulties should also identify for Mr. Jettner the vehicle models they would like to bring to the workshop. Once we compile a list of interested persons and problematic vehicles, we will determine whether the number of representatives per participant must be limited due to space and time constraints. If this proves to be necessary, we will equitably allocate the available space among the participating companies and organizations and among the identified problematic vehicles.

To facilitate communication, NHTSA will provide auxiliary aids to participants as necessary during the meeting. To ensure their availability, any person desiring assistance of auxiliary aids (e.g., sign-language interpreter) should contact Ed Jettner.

**Authority:** 15 U.S.C. 1392, 1401, 1403, 1407, delegation of authority at 49 CFR 1.50.

Issued on November 7, 2000.

**Stephen R. Kratzke,**  
*Associate Administrator for Safety Performance Standards.*

[FR Doc. 00-28985 Filed 11-13-00; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

#### 49 CFR Parts 578 and 592

[Docket No. NHTSA 2000-8253]

RIN 2127-AI18

#### Civil Penalties; Registered Importers of Vehicles Not Originally Manufactured to Conform to the Federal Motor Vehicle Safety Standards

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This document amends NHTSA's regulations on civil penalties and registered importers to reflect related amendments to 49 U.S.C. 30165(a) and 30120(g)(1) made by sections of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, signed by the president on November 1, 2000. Under these amendments, the civil penalty for a single violation of 49 U.S.C. Chapter 301—Motor Vehicle Safety is increased from \$1,100 to \$5,000, and the maximum civil penalty for a related series of violations is increased from \$925,000 to \$15,000,000.

**Agenda for FMVSS 208 Technical Workshop  
Test Procedures for Advanced Air Bag Final Rule  
NHTSA Vehicle Research and Test Center, East Liberty, Ohio  
December 6, 2000**

**8:00-9:00**

**Arrival, security, and sign-in**

**9:00- 9:15**

**Welcome and introduction**

**9:15- 11:15**

**Cinchdown procedure for child restraints in vehicles equipped with static suppression technology to comply with the advanced air bag requirements.**

**11:15 - 12:30**

**Procedures for positioning the 6-year-old and 3-year-old child dummies in the passenger seating position in vehicles equipped with low-risk deployment technology to comply with the advanced air bag requirements. The workshop will address the method used to achieve the final position and the effect that the vehicle seat may have on achieving that position.**

**12:30 - 1:30**

**Lunch**

**1:30 - 2:15**

**Continue with 6 & 3 year old**

**2:15 - 2:30**

**Break**

**2:30 - 4:30**

**Procedures for positioning for the 5th percentile adult female dummy for the purpose of demonstrating compliance with the low-risk deployment test of the advanced air bag requirements. The workshop will address the method used to achieve the final chin-on-rim position in out-of-position test procedure for S26.3, Driver Position 2 (chin on rim) and the effect that the vehicle seat may have on achieving the chin-on-rim and chest-on-module positions.**

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**If the topics on the agenda are completed before 4:30, we can listen to other concerns that were raised in the petitions for reconsideration, for example:**

- a. positioning procedures for rigid barrier tests using the 5<sup>th</sup> percentile adult female test dummy.**
- b. discussion of possible effects on kinematics of position of 3-year-old and 6-year-old dummy legs, especially in vehicles equipped with top-mounted air bags.**